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Title:
Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A_Geneseq_101002:*
1: /SIDS2/gcgdata/gcg.
2: /SIDS2/gcgdata/gcg.
3: /SIDS2/gcgdata/gcg.
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157
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/SIDS2/gcgdata/geneseq/geneseqp-embl/AA1989.DAT:*
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pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Result No.	Score		ength	DB	ĬĎ	Description
_ :	28	- 1		20	20 AAY39218	M. tuberculosis an
N	28	17.8	178	20	AAY39075	M. tuberculosis re
ω	27	17.2	45	22	AA010118	Human polypeptide
4	27	17.2	58	21	AAB24498	Human secreted pro
5	27	17.2	125	22	ABG05086	Novel human diagno
6	27	17.2	274	22	AAU19418	Human diagnostic a
7	27	17.2	468	21	AAB24499	Human secreted pro
8	26	16.6	59	22	ABB39643	Peptide #7149 enco
9	26	16.6	59	22	ABB24324	Protein #6323 enco
10	26	16.6	59	22	AAM60355	Human brain expres

44.	2.5	41	40	39	ა 8	37	36	u G	34	ω u	32	<u>3</u>	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13.	12	11
266) N N	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	16.6			•	•	•	•	•	•	•	•	•	•		•	•	•														16.6	16.6
109	104	104	104	104	104	104	104	104	104	104	104	104	103	103	103	103	103	103	103	103	98	91	84	76	73	69	67	66	59	59	59	59
15	21	19	18	18	17	15	15	15	15	15	14	14	23	21	21	21	20	15	10	10	12	23	23	23	23	23	23	18	23	22	22	22
AAR51642 AAR85763	AAY57234	AAW48924	AAW36865	AAW40196	AAW00233	AAR60963	AAR60977	AAR50209	AAR57982	AAR46746	AAR33936	AAR33414	ABB07204	AAY92564	AAB02795	AAB09529	AAY16711	AAR47294	AAP95685	AAP91247	AAR11947	ABP32539	ABP51629	ABB07200	ABB07197	ABB07196	ABP32107	AAW30345	ABG42830	AAM33215	AAM19796	AAM72991
mature hu human CBM	Human bone morphog	Human bone morphog	н	Human partial BMP-	Human BMP3(fx) mor	Human BMP3(fx). H	Human BMP3(fx). H	Human BMP3(fx). H	Human BMP3(fx). H	Human BMP3 (fx) mo	⊞	Human BMP3(fx) sev	Human Ztgfbeta-10	BMP 3 finger-1-hee	Human BMP3 amino a	Human BMP-3, SEQ I	W09914235 Seq ID N	BMP3. Homo sapien	CBMP-3 protein for	Protein CBMP-3. M	Truncated TGF-beta	Human ORF1512 prot	Human TGF-beta-R a	Human Ztgfbeta-10	Human Ztgfbeta-10	Human Ztgfbeta-10	Human ORF1080 prot	Fragment of bone m	Human peptide enco	Peptide #7252 enco		Human bone marrow

ALIGNMENTS

AAY39218 standard; Protein; 178 A

AAY39218;

05-NOV-1999 (first entry)

M. tuberculosis antigen MO-39 amino acid sequence.

Mycobacterium tuberculosis; M. tuberculosis; antigen; immunogen; immunotherapy; diagnosis; immunisation; vaccine; infection; immune response; skin test.

Mycobacterium tuberculosis.

W09942076-A2

26-AUG-1999.

05-MAY-1998; 18-FEB-1998; 17-FEB-1999; 98US-0072967 98US-0025197 99WO-US03268

(CORI-) CORIXA CORP.

Campos-Neto A, Dillon DC, Hendrickson RC, Ho Lodes MJ, Reed SG, Skeiky YAW, Twardzik DR, Houghton R; R, Vedvick TS;

WPI; 1999-527409/44. N-PSDB; AAZ19414.

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                                                             nucleic acids derived from Mycobacterium tuberculosis. The novel polypeptides are useful for detecting M. tuberculosis infection in a biological sample by detecting antibodies which bind with the
                                                                                                         This invention describes novel recombinant antigens and their encoding
Sequence
                           current vaccination
                                                                                                                                           Example 5;
                                                                                                                                                                                                                                                                                                              05-MAY-1998;
18-FEB-1998;
                                                                                                                                                                  New polypeptide comprising antigenic portions of M. tuberculosis
                                                                                                                                                                                                                                                       Campos-Neto A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                M. tuberculosis Ag's, DNAs encoding them, derived fusion proteins and other polypeptides fragments, can be used in pharmaceutical compositions or vaccines to generate a protective or therapeutic immune response to M. tuberculosis and as reagents in skin tests for diagnosis of tuberculosis. Ag can induce proliferation of, or cytokine secretion by, T, B or natural killer cells and/or macrophages in tuberculosis. Immune subjects. AAZ19249 to AAZ19460 and AAY39083 to
                                                      polypeptides, and are useful
                                                                                                                                                                                                                                                                                                                                                                                                              W09942118-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes polypeptides comprising an immuno part of a Mycobacterium tuberculosis antigen (Ag). Also described are vaccines and fusion protein containing M. tuberculosis Ag's.
                                                                                                                                                                                                                                                                                  (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                       17-FEB-1999;
                                                                                                                                                                                                                                                                                                                                                                                 26-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                       Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antigen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         M. tuberculosis recombinant antigen protein MO-39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        05-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY39075;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY39075 standard; Protein; 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY39225
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New antigens from Mycobacterium tuberculosis useful in diagnostic skin tests and protective or therapeutic vaccines or compositions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     103
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                          rent vaccination strategies do not provide
                                                                                                                                                                                                              1999-527416/44.
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                                                                                                                                                                                                   AAZ19202
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     are used in the exemplification of the present invention
 178
                                                                                                                                        Page 291;
                                                                                                                                                                                                                                          Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               178 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                              98US-0072596
98US-0024753
                                                                                                                                                                                                                                                                                                                                                     99WO-US03265
                                                                                                                                                                                                                                         Dillon DC,
SG, Skeik
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            detection; infection; antibody; immunisation;
                                                                                                                                      323pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17.8%;
                                                                                                                                                                                                                                         Skeiky
                                                                                                                                                                                                                                       YAW, Twardzik DR,
                                                 as vaccines for immunizing against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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Pred. No. 1.8e+03
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                                       methods are needed
                                                                                                                                                                                                                                                      Houghton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                comprising an immunogenic (Ag). Also described
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9;
                                                                                                                                                                                                                                       Vedvick TS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 178
                        immunity.
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4. Similarity

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ID AAO1
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                  Query Match
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Best Local Similarity
                                                                                      Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                 cytokine, cell proliferation or cell differentiation or which may induce production of other cytokines in other cell populations. The production and polypeptides in other cell populations. The polypeptides are useful in gene therapy, vaccines or peptide therapy. The polypeptides have various cytokine-like activities, e.g. stem cell growth factor activity, haematopoiesis regulating activity, tissue growth factor activity, haematopoiesis regulating activity, thissue growth factor activity. This activity and may be useful in the diagnosis and/or
                                                                                                                                                                                                                                                                                            Claim 20; SEQ ID NO 24010; 1399pp + Sequence Listing; English
                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                    Tang
                                                                                                                                   treatment of cancer, leukaemia,
                                                                                                                                                                                                                                                    The invention relates to human polynucleotides (AAI79941-AAI93841) and the encoded proteins (AAO00010-AAO13910) that exhibit activity elating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; cytokine; cell proliferation; cell differentiation; gene therapy; vaccine; peptide therapy; stem cell growth factor; haematopoiesis; tissue growth factor; immunomodulatory; cancer; leukaemia;
                                                                                                                                                                                                                                                                                                                                         Isolated nucleic acids and polypeptides, useful for preventing diagnosing and treating e.g. leukaemia, inflammation and immun
                                                                                                                                                                                                                                                                                                                                                                                           N-PSDB; AAI90049
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               28-FEB-2000; 2000US-0515126
18-MAY-2000; 2000US-0577409
                                                                                                                          .nflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HYSE-) HYSEQ INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-FEB-2001; 2001WO-US04927
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        07-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200164835-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           nervous system disorders; arthritis; inflammation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-NOV-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  103 PAAAAAQLCRGSC
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                                                                        ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                        2001-514838/56.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                    Liu
                                               45 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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 17.2%;
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30.8%;
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   Score 27; I
Pred. No. 1
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Pred. No.
                                                                                                                                nervous system disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
DB 22;
1.1e+03;
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             Length
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                                                                                                                                                                                                                                                                                                                                            and immune
                 45
                                                                                                                                   arthritis and
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                                                                                                                                                                           The polynucleotide sequence given in AAA78381 to AAA78432 encode the human secreted proteins given in AAB24437 to AAB24604. Human secreted proteins have activities based on the tissues and cells the genes are expressed in Examples of activities include: cytostatic; antianaemic; antiathetic; antiapsoriatic; antianglogenic; cardiant; anti-HIV; antiopsoriatic; antianglogenic; cardiant; anti-HIV; concurrents; neuroprotective; antimicrobial and antiparkinsonian. Human secreted protein polynucleotides, polypeptides, antagonists and/or agonists may be useful in treating, preventing, and/or diagnosing other cliseases, disorders, and/or conditions such as: (a) cancers; (b) cliseases, disorders, and/or conditions such as: (a) cancers; (d) hyperproliferative disorders; (c) angiogenesis disorders; (d) cliseated with increase appotosis; (g) neurological diseases; and (h) infectious diseases. They are also used to promote wound healing. AAA78372 to AAA78380 and AAB24436 represent sequences used in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB24498
                                                                   Matches
                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antipsoriatic; antiangiogenic; cardiant; anti-HIV; nootropic; neuroprotective; antimicrobial; antiparkinsonian; cancer; immune system disorder; angiogenesis; hyperproliferative disorder; cardiovascular disorder; apoptosis; neurological disease;
                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 26; 562pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Forty seven human nucleic acids encoding secreted proteins, useful in the treatment, prevention and diagnosis of cancers, disorders of the immune system, anglogenesis disorders, neurological diseases and hyperproliferative disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; secreted protein; cytostatic; antianaemic; antidiabetic;
antiinflammatory; ophthalmological; antirheumatic; antiarthriti
                                                                                                                                                                  exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Duan
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAB24498;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB24498 standard; Protein; 58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        infectious disease; wound healing.
                                 17
                                                                                   Local
8
                               PGAAAMGACLGAC 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         secreted protein sequence encoded by gene 7 SEQ ID NO:124
                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Moore PA,
                                                                                                                                    58 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ebner R,
                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
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98US-0113006.
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                                                                                 17.2%;
30.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rosen CA, Endress GA, Soppet DR, Ni J;
Shi Y, Lafleur DW, Olsen HS, Florence
                                                                 0;
                                                                                 Score
Pred.
                                                                   Mismatches
                                                                                 27;
No.
                                                                                 1.3e+03;
                                                                                                   DB 21;
                                                                                             Length 58;
                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       antiarthritic;
                                                               0,
                                                               Gaps
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RESULT 5
ABG05086
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                                                                                                                                                                                                                                                                                                                               polymerase chain reaction (PCR) primers, oligomers, and for chromosome cand gene mapping, and in recombinant production of (II). The candidate are also used in diagnostics as expressed sequence tags for identifying expressed genes. (I) is useful in gene therapy techniques consistent in the contract of the contract of
                                                                                            Query Match
Best Local S
Matches 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated polynucleotide and encoded polypeptides, useful in diagnostics, forensics, gene mapping, identification of mutation responsible for genetic disorders or other traits and to assess biodiversity
                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                              diagnostic amino acid sequences of the invention.

Note: The sequence data for this patent did not appear in the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 20; SEQ ID No 35445; 103pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-639362/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           31-MAR-2000;
23-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAR-2001; 2001WO-US08631.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; chromosome mapping; gene mapping; gene therapy; forensic
food supplement; medical imaging; diagnostic; genetic disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABG05086;
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                                                                                                                                                                                                                                          at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to isolated polynucleotide (I) and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Drmanac RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200175067-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel human diagnostic protein #5077.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (HYSE-)
13
                                              PXXXXXXXCXGXC
PKGALLSACSGAC
                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAS69273.
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                                                                                                                                                                                              125
                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0540217
2000US-0649167
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first
                                                                                                                                                                                              A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                   17.2%;
30.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tang YT;
                                                                                               0;
                                                                                                                   Score 27; DB 22;
Pred. No. 2.1e+03;
                                                                                               Mismatches
                                                                                                                                        Length 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mutations
                                                                                            0;
                                                                                          Gaps
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RESULT 6 AAU19418

AAU19418 standard; Protein; 274 AA

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Liu TF, Ros
Wright RJ,
                  Claim 27;
                                           Polynucleotides encoding diagnostic and therapeutic proteins, e.g. enzymes, hormones and receptors, useful in diagnostics and therapeutics
                                                                                                                                Chen A, D
Dufour GE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; receptor; diagnostic; therapeutic; gene therapy; vaccine; cell proliferative disorder; Crohn's disease; lymphoma; leukaemia; acquired immune deficiency syndrome; AIDS; autoimmune disorder;
                                                                                                                                                                     (INCY-) INCYTE GENOMICS INC
                                                                                                                                                                                                                                                                         16-MAY-2000;
16-MAY-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-FEB-2001; 2001WO-US06059
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human diagnostic and therapeutic polypeptide (DITHP) #4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              04-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              respiratory disorder.
                                                                                                                                                                                                                                                                                                     L5-MAY-20
                                                                         2001-502867/55
)B; AAS30989.
                                                                                                                                                  SR,
                                                                                                                                SR, Spiro PA,
D'Sa SA, Ams
3E, Flores V,
                                                                                                             Roseberry AM,
J, Yap PE, Yu
                 Page 399-400; 522pp; English.
                                                                                                                                                                                                                                                                                                                                                                                       2000US-0184773.
2000US-0184774.
2000US-0184776.
                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-0184769.
2000US-0184770.
2000US-0184771.
2000US-0184772.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                       2000US-0205232
2000US-0204815
                                                                                                                                                                                                                                                                                                                                          2000US-0184841
                                                                                                                                                                                                                                                                                                                                                   2000US-0184837
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                                                                                                                                         Amshey
                                                                                                    Banville SC, Shah P, Chalup MS, Chang SC; Ney S, Dahl CR, Dam TC, Daniels SE; Fong WT, Greenawalt LB, Hillman JL, Jones AL; Rosen BH, Russo FD, Stockdreher TK, Daffo A; U JY, Bradley DL, Bratcher SR, Chen W; Lincoln SE, Jackson S;
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The invention

relates to polynucleotides (I) encoding diagnostic and

WPI; 2000-431566/37.

human nucleic

acids encoding secreted proteins, useful

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cc or supplementing the patient's own production of them. (I) and (II) cc may be used to treat disease, for example, cell proliferative disorder, cc Crohn's disease, acquired immune deficiency syndrome (AIDS), lymphoma, cc leukaemia, autoimmune disorders, and respiratory disorders. Additionally, cc linto a host cell and culturing the cell to express the protein. (I) and cc into a host cell and culturing the cell to express the protein. (I) and cc its complementary sequences may also be used as DNA probes in diagnostic cc assays to detect and quantitate the presence of similar nucleic acids in cc samples, and therefore which patients may be in need of restorative cc therapy. (II) may also be used as antigens in the production of cc antibodies against DITHPs and in assays to identify modulators of DITHP capression and activity. The anti-DITHP antibodies and antagonists may cc antibodies may also be used as diagnostic additivity. The anti-DITHP antibodies and antagonists may cc antibodies may also be used as diagnostic and activity. The anti-DITHP antibodies and antagonists may cc antibodies may also be used as diagnostic and activity. The anti-DITHP antibodies and antagonists may cc antibodies may also be used as diagnostic and activity. The anti-DITHP antibodies and antagonists may cc antibodies may also be used as diagnostic and activity. The anti-DITHP antibodies and activity. The anti-DITHP antibodies and activity. The anti-DITHP antibodies and antagonists may cc antibodies may also be used as diagnostic and activity. The anti-DITHP antibodies and activity. The anti-DITHP antibodies and antagonists may cc antibodies may also be used to down regulate expression and activity. The anti-DITHP antibodies and antagonists may cc antibodies may also be used to down the anti-DITHP antibodies and activity. The anti-DITHP antibodies and antagonists may cc antibodies and activity. The anti-DITHP antibodies and activity and antibodies and activity and activity. The anti-DITHP antibodies and activity and activity and activ
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AAB24499
PTXXXX PDXXXX XXXX PXXXX PXXX PXXXX PXXX PXXXX PXXX PXXXX PXXX PXXXX PXXXX PXXXX PXXX P
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Best Local Similarity
                                                                                                                                                   Ruben SM,
Duan DR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antipsoriatic; antiangiogenic; cardiant; anti-HIV; nootropic; neuroprotective; antinicrobial; antiparkinsonian; cancer; immune system disorder; angiogenesis; hyperproliferative disorder; cardiovascular disorder; apoptosis; neurological disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 therapeutic (DITHP) polypeptides (II), which include e.g. enzymes, and proteins involved in growth and development and receptors. (I) and (II) may be used in the prevention, diagnosis and treatment of diseases associated with inappropriate DITHP expression. For example, (I) and (II) may be used to treat disorders associated with decreased polypeptide expression by rectifying mutations or deletions in a patient's genome, that affect the activity of the DITHPs, by expressing inactive proteins
                                                                                                                                                                                                                                                                                                                                                    17-DEC-1998;
18-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; secreted protein; cytostatic; antianaemic; antidiabetic; antiinflammatory; ophthalmological; antirheumatic; antiarthriti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human secreted protein sequence encoded by gene 7 SEQ ID NO:125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAB24499 standard; Protein; 468 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-JUN-2000.
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                                                                                                                                                                                                                                                                          (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                infectious disease; wound healing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  262 PCGSSSATCSGHC
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                                                                                                                                                       Moore
                                                                                                                                                                                        Ebner R,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                    98US-0112809
98US-0113006
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                                                                                                                                                   Rosen C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17.2%;
30.8%;
                                                                                                                                                                                        CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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Pred. No. 3.4e+03;
                                                                                                                                               Endress G
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            antirheumatic; antiarthritic;
                                                                                                                           GA,
W. Olsen
                                                                                                                                               Soppet DR, Ni J;
sen HS, Florence K;
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RESULT 8
ABB39643
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                  04 - FEB - 2000;
26 - MAY - 2000;
30 - JUN - 2000;
03 - AUG - 2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human secreted protein polynucleotides, polypeptides, antagonists and/or agonists may be useful in treating, preventing, and/or diagnosing other diseases, disorders, and/or conditions such as: (a) cancers; (b) disorders of the immune system; (c) anglogenesis disorders; (d) hyperproliferative disorders; (e) cardiovascular disorders; (f) diseases associated with increase apoptosis; (g) neurological diseases; and (h) infectious diseases. They are also used to promote wound healing. AAA78372 to AAA78380 and AAB24436 represent sequences used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   expressed in. Examples of activities include: cytostatic; antiar antidiabetic; antiinflammatory; ophthalmological; antirheumatic; antiarthritic; antipsoriatic; antiangiogenic; cardiatic; anti-HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The polynucleotide sequence given in AAA78381 to AAA78432 encode the human secreted proteins given in AAB24437 to AAB24604. Human secreted proteins have activities based on the tissues and cells the genes are expressed in. Examples of activities include: cytostatic; antianaemic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the treatment, prevention and diagnosis of cancers, disorders of the immune system, angiogenesis disorders, neurological diseases and hyperproliferative disorders - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Peptide #7149 encoded by human foetal liver single exon probe.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 25-26;
              Claim 27;
                                           Human genome-derived single exon nucleic acid probes useful for analyzing gene expression in human fetal liver -
                                                                                                                                                                                       04-OCT-2000;
                                                                                                                                                                                                                                                                                                                 30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                 09-AUG-2001.
                                                                                                                                                                                                                                                                                                                                                                                WO200157277-A2
                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; foetal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABB39643 standard; Peptide; 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antiarthritic; antipsoriatic; antiangiogenic; cardiant; anti-HIV;
nootropic; neuroprotective; antimicrobial and antiparkinsonian.
                                                                                                                                                                                                      21-SEP-2000;
27-SEP-2000;
                                                                                                                                                        (MOLE-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PGAAAMGACLGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 4:
                                                                                                                                                      MOLECULAR DYNAMICS INC
              SEQ ID
                                         gene expression
                                                                                                                        Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                468 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                    2000US-0180312.
2000US-0207456.
2000US-068408.
2000US-0632366.
2000US-0234687.
2000US-0234687.
2000US-0236359.
2000US-0024263.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                 2001WO-US00669.
                                                                                                                                                                                                                                                                                                                                                                                                                                          liver; gene expression; single exon nucleic acid probe.
              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29
             32278; 639pp + sequence listing; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17.2%;
                                                                                                                        Chen W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     562pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 27;
Pred. No.
                                                                                                                          Rank DR;
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9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 468;
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ABB24324
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      Query Match
Best Local
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26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a single exon nucleic acid probe for measuring human gene expression in a sample derived from human foetal liver. The single exon nucleic acid probes may be used for predicting, measuring and displaying gene expression in samples derived from human fetal liver. The present sequence is a peptide encoded by a single exon nucleic acid probe of the invention.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly
measuring human gene expression in a sample derived from human heart (see ABA21555-ABA41305). The present sequence is a protein encoded by one sucl probe. The probes may be used for predicting, measuring and displaying gene expression in samples derived from the human heart via microarrays. By measuring gene expression, the probes are useful for predicting, diagnosing, grading, staging, monitoring and prognosing diseases of the human heart and vascular system e.g. cardiovascular disease. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          congenital heart disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; gene expression; heart; microarray; vascular system; cardiovascular disease; hypertension; cardiac arrhythmia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABB24324;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABB24324 standard; Protein; 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                    The present invention relates to single exon nucleic acid probes for
                                                                                                                                                                                  Claim 15; SEQ ID No 26094; 530pp; English.
                                                                                                                                                                                                                             Single
                                                                                                                                                                                                                                                           WPI; 2001-488899/53
                                                                                                                                                                                                                                                                                         Penn
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein #6323 encoded by probe for measuring heart cell gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       from WIPO
                                                                                                                                                                                                                                                                                                                     (MOLE-)
                                                                                                                                                                                                                                                                                                                                                                             21-SEP-2000;
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                                                                                                                                                                                                                    exon nucleic acid probes for analyzing gene expression in human
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                                                                                                                                                                                                                                                                                                                      MOLECULAR DYNAMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      at ftp.wipo.int/pub/published_pct_sequences.
                                                                                                                                                                                                                                                                                       Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          59 AA;
                                                                                                                                                                                                                                                                                                                                                              2000US-0180312.
2000US-0207456.
2000US-0608408.
2000US-0632366.
2000US-0234687.
2000US-0236359.
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Pred. No.
                                                                                                                                                                                                                                                                                         Rank DR
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1.8e+03;
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RESULT 10
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ID AAM60
XX AAM60
XX AAM60
XX D5-NO
XX Human
XX Human
XX Human
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XX W200
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Best Local S
Matches 4
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Best Local
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26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
21-SEP-2000;
27-SEP-2000;
                                                                                                                                                                                                                                                                 The present invention provides a number of single exon nucleic acid probes which are derived from genomic series expressed in the human brain. They can be used to measure gene expression in brain cell samples, which may enable the diagnosis and improved treatment of nervous system diseases such as Alzheimer's disease, multiple sclerosis, schizophrenia, epilepsy and cancers. The present sequence is a protein encoded by one of the probes of the invention.
                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Single exon nucleic brains -
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; brain expressed exon; gene expression analysis; probe;
microarray; Alzheimer's disease; multiple sclerosis; schizophrenia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human brain
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                                                  20
                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17 PXXXXXXXXCXGXC
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nes 4; Conserv
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                                                  PGSSPPSACAGAC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hanzel DK,
                                                                                                                                                                                                                            59 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 59 AA;
                                                                                                                                     Conservative
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2000US-0234687.
2000US-0236359.
2000US-0024263.
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2000US-0207456.
2000US-0608408.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     expressed single exon probe encoded protein SEQ ID NO: 32460.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              acid probes
                                                                                                                                                       16.6%;
30.8%;
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30.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                              32460; 650pp + Sequence Listing; English
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                                                                                                                                                          Pred. No. 1
                                                                                                                                                                            Score 26;
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Pred. No. 1.8e+03;
0; Mismatches 9
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                                                                                                                                     Mismatches
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                                                                                                                                                       8e+03;
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AAM19796
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AAM72991
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Best Local S
Matches 4
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26-MAY-2000; 2000US-0204456.
30-JUN-2000; 2000US-0608408.
03-AUG-2000; 2000US-0632366.
21-SEP-2000; 2000US-0236459.
04-OCT-2000; 2000GB-0024263.
Probe; human; microarray; gene expression; cervical epithelial cell;
cervical cancer.
                                    Peptide #6230 encoded
                                                                                                                                                                                                                                                                                           The present invention provides a number of single exon nucleic acid probes which are derived from genomic sequences expressed in the human bone marrow. They can be used to measure gene expression in bone marrow samples, which may enable the improved diagnosis and treatment of cancers such as lymphoma, leukaemia and myeloma. The present sequence is a protein encoded by one of the probes of the invention.
                                                                                     AAM19796;
                                                                                                            AAM19796 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Penn
                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                           analyzing gene expression in human bone marrow
                                                            12-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                   Example 4; SEQ ID NO: 33297; 658pp + Sequence Listing;
                                                                                                                                                                                                                                                                                                                                                                                                                     Human genome-derived single exon nucleic acid probes useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (MOLE-) MOLECULAR DYNAMICS INC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        microarray;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; bone marrow expressed exon; gene expression analysis; probe;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human bone marrow expressed probe encoded protein SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-NOV-2001
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                                                                                                                                                                                                                        Similarity 4; Conserv
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                                                           (first entry)
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                                  probe
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                                                                                                                                                                                                                       Score 26; DB 22;
Pred. No. 1.8e+03;
0; Mismatches 9
                                    for
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rank DR;
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                                measuring cervical gene expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        myeloma.
                                                                                                                                                                                                                         9
                                                                                                                                                                                                                                               Length 59;
                                                                                                                                                                                                                                                                                                                                                                                   English
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RESULT 13
AAM33215
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Best Local
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04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
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21-SEP-2000;
27-SEP-2000;
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26-MAY-2000;
30-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to human single exon nucleic acid probes (SENP: see AAI10068-AAI28459). The present sequence is a peptide encoded by one such probe. The SENPs are derived from human HeLa cells. The SENPs can be used to produce a single exon microarray, which can be used for measuring human gene expression in a sample derived from human cervical epithelial cells. By measuring gene expression, the probes are therefore useful in grading and/or staging of diseases of the cervix, notably
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                09-AUG-2001.
                                                                                                                                                    genetic
                                                                                                                                                                Probe;
                                                                                                                                                                                  Peptide #7252 encoded by probe for measuring placental gene expression.
                                                                                                                                                                                                            17-OCT-2001
                                                                                                                                                                                                                                    AAM33215;
                                                                                                                                                                                                                                                         AAM33215 standard;
                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                              Note: The sequence data for this patent did not form specification, but was obtained in electronic format
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   analyzing
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                                                         30-JAN-2001;
                                                                                                       WO200157272-A2
                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cervical cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (MOLE-)
                                                                                                                                                                                                                                                                                                                                            17
                                                                                                                                                                                                                                                                                                                   20 PGSSPPSACAGAC 32
                                                                                                                                                                                                                                                                                                                                                                                                                                     ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                            PXXXXXXXXCXGXC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   genome-derived single exon nucleic acid probes useful for ring gene expression in human cervical epithelial cells -
                                                                                                                                                               microarray;
                                                                                                                                                    disorder.
                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOLECULAR DYNAMICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQ ID No 24622; 487pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                               59 AA;
; 2000US-0180312.
; 2000US-0207456.
; 2000US-0608408.
; 2000US-0632366.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; 2000US-0207456.
; 2000US-0608408.
; 2000US-0632366.
; 2000US-0234687
; 2000US-0234687
; 2000US-0236359.
; 2000GB-0024263.
                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                         2001WO-US00663
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                                                                                                                                                                                                            (first entry)
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                                                                                                                                                                                                                                                          Protein;
                                                                                                                                                              human;
                                                                                                                                                                                                                                                                                                                                                                           16.6%;
30.8%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   INC.
                                                                                                                                                                                                                                                           59
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                                                                                                                                                                                                                                                                                                                                                                           Score 26;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                               antenatal
                                                                                                                                                                                                                                                                                                                                                                           DB 22;
1.8e+03;
                                                                                                                                                               diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                     Length 59;
                                                                                                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              from human cervical probes are therefore cervix, notably
                                                                                                                                                                                                                                                                                                                                                                                                                                               part of the printed directly from WIPO
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RESULT 14
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                                                                                                                                                                                                   04-FEB-2000;
26-MAY-2000;
30-JUN-2000;
03-AUG-2000;
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27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to single exon nucleic acid probes (SENP: see AAI31315-AAI57546). The present sequence is a peptide encoded by one such probe. The probes are useful for producing a microarray for predicting, measuring and displaying gene expression in samples derived from human placenta. The probes are useful for antenatal diagnosis of human genetic disorders.
                   Penn
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                                                                                                                                                                                                                                                                                                                                   30-JAN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hermansky-Pudlak syndrome; sarcoidosis; pulmonary haemosiderosis; pulmonary histiocytosis; lymphangioleiomyomtosis; Karagener syndrome; pulmonary alveolar proteinosis; fibrocystic pulmonary dysplasia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; single exon probe; asthma; lung cancer; COPD; ILD; chronic obstructive pulmonary disease; interstitial lung disease; familial iddiopathic pulmonary fibrosis; neurofibromatosis; tuberous sclerosis; Gaucher's disease; Niemann-Pick disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human peptide encoded by genome-derived single exon probe
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 27; SEQ ID No 33484; 654pp; English.
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                                                                         (MOLE-)
                                                                                                                                                     21-SEP-2000;
27-SEP-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     primary ciliary dyskinesis; pulmonary hypertension;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABG42830;
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                     SG,
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4; Conserv
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                                                                         MOLECULAR DYNAMICS INC
                     Hanzel DK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gene
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                                                                                                                       2000US-180312P.
2000US-207456P.
2000US-0608408.
2000US-0632366.
2000US-234687P.
2000US-236359P.
2000US-236359P.
2000US-0024263.
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2000US-0236359.
2000GB-0024263.
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                     Chen W,
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Pred. No. 1.8e+03;
                     Rank DR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Consider of the nover set of process which in the human lung, measuring gene expression in a collection of detectably labeled nucleic acids derived from human lung, comprising (a) contacting the array with a collection of detectably labeled nucleic acids derived from human lung measuring the label detectably bound to each probe of the array; identifying exons in a eukaryotic genome, comprising (a) algorithmically predicting at least one exon from genomic sequences of the eukaryote; and (b) detecting specific hybridisation of detectably labeled nucleic acids from eukaryote lung mRNA, to a single exon probe, having a fragment identical to the predicted exon, the probe is included in the above mentioned microarray; assigning exons to a single gene, comprising (a) identifying exons from genomic sequence by the method above and (b) measuring the expression of each of the exons in several ctisues and/or cell types using hybridisation to a single gene, compression of the exons in the tissues and/or cell types indicates that the exons should be assigned to a single exon probe. In the exons should be assigned to a single gene; a peptide comprising one of 12011 sequences, mentioned in the specification, or encoded by the probes/open reading frames (ORP). The probes are used for gene compression analysis, and for identifying exons in a gene, particularly using human lung derived mRNA and for the study of lung diseases (COPD), interstitial lung disease (ILD), familial idiopathic pulmonary disease. Complementations, pulmonary disease, repulmonary alveolar proteinosis, karagener syndrome, sarcoidosis, pulmonary hastiocytosis, lymphangiolelomyomosis, pulmonary histocytosis, lymphangiolelomyomosis, pulmonary histocytosis, lymphangiolelomyomosis, pulmonary hypertension and hyaline membrane disease. The present sequence is a peptide/protein of the printed specification, but was obtained in electronic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                 Neurturin; human; haematopoietic cell; neuronal cell; stem cell; NT gene neurodegenerative disease; peripheral neuropathy; nervous system tumour; amyotrophic lateral sclerosis; Alzheimer's disease; Parkinson's disease;
                                                                                                                    Fragment of bone morphogenic factor 3.
                                                                                                                                                                       11-FEB-1998
                                                                                                                                                                                                                                                                  AAW30345 standard; Peptide; 66 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from human lung comprising single exon nucleic acid probes having one of 12614 nucleic acid sequences mentioned in the specification, or their complements or the 12387 open reading frames derived from the 12614 probes. Also included are a microarray comprising the novel set of probes; the novel set of probes; the novel set of probes; the novel set of probes which hybridise at high stringency to a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human lung comprising single exon nucleic acid probes having one
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 27; SEQ ID No 32495; 634pp; English.
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stroke; acute brain injury;
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1.8e+03;
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acute spinal cord injury; multiple sclerosis; eosinopaenia; lymphopaenia; monocytopaenia; neutropaenia; anaemia; thromobocytopaenia; neuroblastoma; antibody; obesity; therapy; bone morphogenic factor 3; growth factor;
hybrid protein;
         BMP3.
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W09708196-A1 Homo sapiens

27-AUG-1996; 96WO-US14065

06-MAR-1997

28-AUG-1995; 95US-0519777

(UNIW) UNIV WASHINGTON

Johnson EM, Kotzbauer PT, Lampe PA, Milbrandt JD;

A novel growth factor Neurturin haematopoietic cell degeneration 1997-179176/16 used to treat neuro-degenerative diseases, e.g. Alzheimer's

Claim 93; Fig 17; 206pp; English

disease and

eosinopenia

basopaenia, lymphopaenia, monocytopaenia, neutropaenia, anaemia, thromobocytopaenia and stem cell insufficiencies. The NT protein and gene are also useful to treat neuroblastomas. Antibodies against NT and cligonucleotides (used as either probes or primers, corresponding to an exon of pre-pro-NT gene or flanking a target sequence) can be used for detecting NT in a sample or detecting mutations in the NT gene. Antisense sequences of the NT gene are used to treat diseases promoted by NT a hybrid polypeptide of the invention. These sequences form a hybrid with the human neurturin (NT) fragment shown in AAW30378. NT promotes the growth and differentiation of haematopoietic and neuronal cells, and their stem cells. The NT gene and protein are used to prevent or treat neurodegenerative diseases e.g. peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's disease, Parkinson's disease, Huntingdon's disease, ischaemic stroke, acute brain injury, acute spinal cord injury, nervous system tumours, multiple sclerosis and infection; and haematopoietic cell degenerative diseases, e.g. cosinopaenia, expression e.g. obesity. AAW30331-W30353 represent human growth factor fragments that are used 'n

Sequence 66

Ş Matches Query Match 17 Local PXXXXXXXXCXGXC Similarity Conservative 16.6%; 0 Score Pred. Mismatches 26; No. 2e+03; DB 9; Length 66 0; Gaps

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Job time Search completed: March 27, 2003, 10:59:39

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Result
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                  and is derived by analysis of the total score distribution.
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seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            No. is the number of results predicted by chance to have a greater than or equal to the score of the result being printed,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Issued_Patents_AA:*
1: /cgn2_6/ptodata/1,
2: /cgn2_6/ptodata/1,
3: /cgn2_6/ptodata/1,
4: /cgn2_6/ptodata/1,
5: /cgn2_6/ptodata/1,
6: /cgn2_6/ptodata/1,
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Match
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157
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             GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/ACTUS_COMB.pep:*
/cgn2_6/ptodata/1/iaa/backfiles1.pep:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length DB
             US-09-072-596-297
US-08-335-583C-41
US-08-478-097a-1164
US-08-981-739-164
US-08-981-739-26
US-08-155-343a-26
US-08-643-753a-26
US-08-643-753a-26
US-08-643-753a-26
US-08-461-633-26
US-08-461-397a-26
US-08-461-397a-26
US-08-481-397a-26
US-08-481-397a-26
US-08-481-397a-26
US-08-481-397a-26
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US-08-481-397a-26
US-08-481-397a-26
US-08-481-397a-26
US-08-481-397a-26
US-08-481-113-26
US-08-461-113-26
PCT-US93-07231-26
PCT-US93-07231-26
PCT-US93-0808-26
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
Sequence 297, App Sequence 11, Appl Sequence 11, Appl Sequence 164, Appl Sequence 164, App Sequence 26, Appl Sequence 26
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28
26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
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PCT-US94-00685-16	PCT-US94-00666-18	US-09-389-705-18	US-09-301-520D-16	US-09-172-062-16	US-08-946-092A-16	US-09-153-733A-18	US-08-491-835-16	US-08-481-377-18	US-08-624-635-26	US-08-624-635-25	PCT-US93-05446-17	US-08-449-699A-21	US-08-449-700-21	US-08-447-570-21	US-08-147-023-21	US-07-901-703-17	US-07-841-646-21
Sequence 16, Appl	Sequence 18, Appl	•	•	Sequence 16, Appl	16,	•	Sequence 16, Appl	•	•	•	•	•	Sequence 21, Appl	•	Sequence 21, Appl	Sequence 17, Appl	Sequence 21, Appl

ALIGNMENTS

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US-09-072-596-297
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US-09-072-596-297
                                                                                                         TELEPHONE: (200) 022.031
TELEPHONE: (206) 682-6031
TELEFAX: (206) 682-6031
INFORMATION FOR SEQ ID NO: 297:
SEQUIENCE CHARACTERISTICS:
LENGTH: 178 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
Query Match
Best Local Similarity
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APPLICANT:
                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Maki, David J.
REGISTRATION UNMBER: 31,392
REFERENCE/DOCKET NUMBER: 21
TELECOMMUNICATION INFORMATION:
                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 05-MAY-199
                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Twardzik, Daniel R.
APPLICANT: Lodes, Michael J.
APPLICANT: Hendrickson, Ronald C.
TITLE OF INVENTION: COMPOUNDS AND
NUMBER OF SEQUENCES: 350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CORRESPONDENCE ADDRESS:
                                                                            LENGTH: 178 amino TYPE: amino acid STRANDEDNESS: sinc TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY:
STATE:
                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
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Washington
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Vedvick, Thomas S.
Twardzik, Daniel R.
Lodes, Michael J.
Hendrickson, Ronald C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            6300 Columbia
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Dillon, Davin C.
Campos-Neto, Antonia
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17.8%;
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Score 28; DB 4;
Pred. No. 3.4e+02;
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                 Length 178;
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RESULT 3
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                 Sequence 11, Application US/08478097A Patent No. 6040431 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Patent No.
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                                                                                                                                                                                                                      Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                         INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Wang, Shouwan
APPLICANT: Krinks, Marie
TITLE OF INVENTION: PRODU
TITLE OF INVENTION: ANTI-
                                                                                                                                                                                                                                                                   FRAGMENT TYPE: (
ORIGINAL SOURCE:
                                                                                                                                                                                                                                                                                                  HYPOTHETICAL:
ANTI-SENSE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
        APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION: TELEPHONE: 714-760-0404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            103
                                                                                                                              22
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TELEPHONE: /14 - 760 - 9502
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                                                                                                                                                                                                                                                                                                                                                TOPOLOGY: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Altman, Daniel E REGISTRATION NUMBER: 34, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER:
                                                                                                                                                                                        Local Similarity 30.0 es 4; Conservative
                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE:
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                                                                                                                              PKSFDAYYCSGAC 34
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                                                                                                                                                                                                                                                                                                                                                                                         103 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                               linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IBM Compatible
                                                                                                                                                                                                                                                                                     C-terminal
                                                                                                                                                                                                                                                                                                                                peptide
                                                                                                                                                                                                                                                                                                                                                            single
        PETER
                                                                                                                                                                                                      16.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOS
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                                                                                                                                                                                                      Score 26;
Pred. No. 4
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                                                                                                                                                                                      . 4.7e+02;
9;
                                                                                                                                                                                                                      DB 1; Length 103;
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                                                                                                                                                                                                                                                                                                                                               RESULT 4
                                                                                                                                                                                                                                                                                                  Patent No.
                                                                                                                                                                                                                                                                                                               Sequence 164, Application US/08931858E
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEFAX: 617-248-7100 INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                        APPLICANT: DESAUVA TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 103 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: PITCHER ESQ, EDMUND R
REGISTRATION NUMBER: 27,829
REFERENCE/DOCKET NUMBER: CRI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE OF INVENTION: SINGLE-CHAIN ANALOGS OF TGF-B TITLE OF INVENTION: SUPERFAMILY (MORPHONS) NUMBER OF SEQUENCES: 45
                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: 617-248-7000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORRESPONDENCE ADDRESS
                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                   APPLICANT:
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                                                 COUNTRY: US
ZIP: 63105
                                                                                                                                                                                                                                                                                                                                                                                          22 PKSFDAYYCSGAC
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OTHER INFORMATION:
                                                                                 STATE:
                                                                                                CITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE:
CLASSIFICATION:
                                                                                                         STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CITY: BOSTON
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
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                                                                                              ST. LOUIS
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                                                                                                           E: HOWELL & HAFERKAMP,
7733 FORSYTH BOULEVARD,
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                                                                                                                                                                                                                                     MILBRANDT, JEFFREY D
KOTZBAUER, PAUL T
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SMART, JOHN
                                                                USA
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1..103
                                                                                                                                                                   DESAUVAGE, FRED
JENTION: PERSEPHIN AND RELATED GROWTH FACTOR
                                                                                                                                                                                                      KLEIN, ROBERT
                                                                                                                                                                                                                     LAMPE, PATRICIA A
                                                                                                                                                                                                                                                                   JOHNSON, EUGENE M
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16.6%;
                                                                                                           & HAFERKAMP, L.C.
TH BOULEVARD, SUITE 1400
                                                                                                                                                          239
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Pred. No. 4.7e+02;
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RESULT 5
US-08-981-739-164
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 164, Application US/08981739 Patent No. 6232449 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 164:
                                                   INFORMATION FOR SEQ ID NO: 164: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELECOMMUNICATION INFORMATION: TELEPHONE: 314-727-5188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Rel
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME: HOLLAND, DONALD R. REGISTRATION NUMBER: 35, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LENGTH:
                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PATENTIA Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                 APPLICATION NUMBER: PCT/US97/03461
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                              ZIP: 63105-1817
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
                                                                                                                   TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: PERSEPHIN AND RELATED GROWTH FACTORS NUMBER OF SEQUENCES: 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: JOHNSON JR.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PKSFDAYYCSGAC 34
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            amino acid
                       TYPE: amino acids
                                                                                                                                                                                                                                                APPLICATION NUMBER: US/08/981,739
FILING DATE: 31-Aug-1998
CLASSIFICATION: CURknown>
                                                                                   TELEPHONE: (314) 727-5188
TELEFAX: (314) 727-6092
                                                                                                                                   REGISTRATION NUMBER: 35,197
REFERENCE/DOCKET NUMBER: 976163
                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: ST. LOUIS
STATE: MISSOURI
      STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET: 7733 FORSYTH BOULEVARD,
                                                                                                                                                                   NAME: HOLLAND, DONALD R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: HOWELL & HAFERKAMP, L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           103 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                314-727-6092
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linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LAMPE, PATRICIA A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peptide
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in Release #1.0, Version #1.30
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Pred. No. 4
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4.7e+02;
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                                                                              RESULT 7
US-08-278-729A-26
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; SEQUENCE DESCRIPTION: SEQ ID NO: 164:
US-08-981-739-164
                                                                                                                                                                                                             Query Match
Best Local S
Matches 4
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Best Local Similarity 30.0
                                             Sequence 20
Patent No.
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                                GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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 APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: 97
TELECOMMUNICATION INFORMATION:
TELEPHONE: (314) 727-5188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/128,026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: HOLLAND, DONALD R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: PE NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: MILBRANDT, JEFFREY D. APPLICANT: KOTZBAUER, PAUL T. APPLICANT: LAMPE, PATRICIA A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
                                                                                                                                                22 PKSFDAYYCSGAC
                                                                                                                                                                                                            Local Similarity es 4; Conserv
                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                             TYPE:
                                                                                                                                                                             17 PXXXXXXXXXXXX 29
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                                                                                                                                                                                                                                                                                                                                                            LENGTH:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: HOWELL & HAFERKAMP, L.C. STREET: 7733 FORSYTH BOULEVARD, SUITE 1400
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                                                 26, Application US/08278729A
5. 5650276
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                                                                                                                                                                                                                                                                                                                                          amino acid
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                                                                                                                                                                                                                                                                                                                                                         103 amino acids
OPPERMANN, HERMAN
                 SMART, JOHN
                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       JOHNSON JR.,
                                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                                          peptide
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                                                                                                                                                                                                                                                                                                                                                                                                          727-6092
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                                                                                                                                                                                                                             16.6%;
                                                                                                                                                                                                                                                                                                                                                                                             164:
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                                                                                                                                                                                                               <u>.</u>.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              976163
                                                                                                                                                                                                                           Score 26; DB 4;
Pred. No. 4.7e+02;
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Pred. No.
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US-08-155-343A-26
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Matches 4; Conserve
                                                                                                                                                                                                                                                                              Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                             GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (508) 435-90
TELEFAX: (508) 435-6951
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: PITCHER ESq., EDMUND R.
REGISTRATION NUMBER: 27,829
REFERENCE/DOCKET NUMBER: CRP-(TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08
FILING DATE: 20-JUL-1994
CLASSIFICATION: 435
                                                                                              NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
                                                                                                                                                                                                                          APPLICANT:
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CORRESPONDENCE ADDRESS:
COMPUTER
                                                                                                                                            TITLE OF INVENTION: MORPHOGENIC-I
                                                                                                                                                                              APPLICANT: COHEN, CHARLES M. APPLICANT: PANG, ROY H.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MOLECULE TYPE: protein
                                                                                                                                                                                                              APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 45 SOUTH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCATION: 1..104
OTHER INFORMATION: /label= BMP3
               COUNTRY: UZIP: 01748
                                                 STATE:
                                                                                                                                                                                                                                                                                                                                                                             22 PKSFDAYYCSGAC 34
                                                                                                                                                                                                                                                                                                                                                                                                          17 PXXXXXXXXXXXX 29
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                                                                            STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                           4; Conservative
                                                                                                                                                                                                                                                                              6, Application US/08155343A 5656593
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                                                             HOPKINTON
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READABLE FORM:
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                                                                            45 SOUTH STREET
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45 SOUTH STREET
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                                USA
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                                                                                                                                                                                                              OPPERMANN, HERMAN
                                                                                                                                                                                                                              RUEGER, DAVID C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PANG, ROY H.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      OZKAYNAK, ENGIN
                                                                                                                                                                                                                                               KUBERASAMPATH, THANGAVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RUEGER,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (508) 435-9001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          16.6%;
                                                                                                                                                               MORPHOGENIC-INDUCED PERIODONTAL TISSUE
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Pred. No. 4.7e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 104;
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/406,672
FILING DATE: 20-MAR-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 752,857
FILING DATE: 30-AUG-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 667,274
FILING DATE: 11-MAR-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/155,343A
FILING DATE: 15-NOV-1993
FILING DATE: 15-NOV-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE/DOCKET NUMBER: CR. TELECOMMUNICATION INFORMATION: TELEPHONE: (617) 248-7560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: PENTON ESQ., GILLIAN M.
REGISTRATION NUMBER: 36,508
                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: RUEGER, DAVID C.

APPLICANT: PANG, ROY H.L.

TITLE OF INVENTION: TREATMENT TO PREVENT LOSS OF AND/OR

TITLE OF INVENTION: INCREASE BONE MASS IN METABOLIC BONE DISEASES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                   ZIP: 01748
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                                                                                                                                                                                                                                              MEDIUM TYPE:
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5. 56744844
                                                                                                                                                                                                                                                                                                                                      HOPKINTON
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                                                                                                                                                                                                                                                                                                    USA
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                                                                                                                                                                                                                                            Floppy disk
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ER: CRP-067FW
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ATTORNEY/AGENT INFORMATION:

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US-08-643-563A-26
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME: FENTON ESq., GILLIAN M.
REGISTRATION NUMBER: 36,508
REFERENCE_DOCKET NUMBER: CEP-060CN
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 248-7560
TELEPHONE: (617) 248-7100
INFORMATION FOR SEQ ID NO: 26:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 26, Application US/08643563A Patent No. 5707810
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APPLICANT: SMART, JOHN
                                                                               TELEFAX: (508) 435-6951 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/643,563A
FILING DATE: 06-MAY-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
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NAME: TWOMEY ESQ., MICHAEL J.
REGISTRATION NUMBER: 38,349
REFERENCE/DOCKET NUMBER: CRP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES
MOLECULE TYPE: protein
                                                                                                                                TELEPHONE: (508) 435-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: COHEN, CHARLES M. TITLE OF INVENTION: MORPHOGE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT:
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                             STRANDEDNESS:
                                               TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: UZIP: 01748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME/KEY: Protein LOCATION: 1..104
OTHER INFORMATION:
                   TOPOLOGY:
                                                                                                                                                                                                                                      CLASSIFICATION:
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                                                             ENGTH:
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Local Similarity 30.8%;
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OZKAYNAK, ENGIN
KUBERASAMPATH, THANGAVEL
RUEGER, DAVID C.
PANG, ROY H.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       45 SOUTH STREET
                                                             104 amino acids
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                 linear
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Pred. No. 4.7e+02;
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US-08-643-763A-26
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                                                            Matches
                                                                                        Query Match
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Best Local Similarity
                                                                                                                                                                                                                                                                                   TELEFAX: (617) 248-7100 INFORMATION FOR SEQ ID NO: 7
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NAME/KEY: Protein
LOCATION: 1..104
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: FENTON ESq., GILLIAN M.
REGISTRATION NUMBER: 36,508
REFERENCE/DOCKET NUMBER: CRP-
TELECOMMUNICATION INFORMATION:
TELECHONE: (617) 248-7560
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA:
                                                                                                                                                                                 FEATURE:
                                                                                                                                                                                              MOLECULE TYPE:
                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: COHEN, CHARLES APPLICANT: PANG, ROY H.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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                                                                                                                                NAME/KEY: Protein LOCATION: 1..104 OTHER INFORMATION:
22
                          17 PXXXXXXXXXXXXX 29
                                                                        Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: US/08/643,763A FILING DATE: 06-MAY-1996 CLASSIFICATION: 514
                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                            TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
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PKSFDAYYCSGAC
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                                                                                                                                                                                                                                                        104
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                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OPPERMANN, HERMAN
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                                                                                                                                                                                                            linear
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                                                                       16.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CHARLES M.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MORPHOGENIC-INDUCED PERIODONTAL TISSUE
                                                                                                                                 /label= BMP3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= BMP3
                                                                  Score 26; DB 1;
Pred. No. 4.7e+02;
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Pred. No. 4.7e+02;
                                                         Mismatches
                                                                                   Length 104;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 104;
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RESULT 12
US-08-462-623-26
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                                                                           Sequence Patent. No. 5741041

GENERAL INFORMATION:
GENERAL TOANT: SMART, JOHN

TOANT: TOANT: TOANT, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Patent No. 5739107
GENERAL INFORMATION:
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                                                                                                                                                                        Sequence 26, Application US/08451953A Patent No. 5741641
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REFERENCE/DOCKET NUMBER: CR.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (508) 435-9001
TELEFAX: (508) 435-6951
INFORMATION FOR SEQ ID NO: 26:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
TREATMENT APPLICATION TO THE TREATMENT TO T
                                                                    APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: OZKAYNAK, ENGIN APPLICANT: SMART, JOHN E. TITLE OF INVENTION: MORPHOG TITLE OF INVENTION: ULCERS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/445.
FILING DATE: 22-MAY-1995
ATTORNEY/AGENT INFORMATION:
NAME: FENTON ESq., GILLIAN M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: protein
APPLICANT:
                                       APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/08/462,623 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: Protein LOCATION: 1..104 OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: amino acid
STRANDEDNESS: sir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         104 amino acids
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CHARETTE, MARC F.
KUBERASAMPATH, THANGAVEL
RUEGER, DAVID C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   USA
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                                   OPPERMANN, HERM!
OZKAYNAK, ENGIN
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
   KUBERASAMPATH, THANGAVEL
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                                                                               HERMAN
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Pred. No. 4.7e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: (508) 435-6951 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: PITCHER ESQ., EDMUND R.
REGISTRATION NUMBER: 27, 289
REFERENCE/DOCKET NUMBER: CRP-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (508) 435-9001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: PITCHER ESG. FDMIT
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION: MORPHOGENIC PROTEIN SCREENING METHOD NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESS:
ADDRESSEE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES STREET: 45 SOUTH STREET
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ZIP: 0.1748
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                      APPLICANT: KUBERASAMPATH,
APPLICANT: RUEGER, DAVID C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                                                                                                                                                                        TITLE OF INVENTION: MO NUMBER OF SEQUENCES: 3 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                       APPLICANT: RUEGER, DAVID C.
APPLICANT: OPPERMANN, HERMAN
APPLICANT: PANG, ROY H.L.
APPLICANT: COHEN, CHARLES M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
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LOCATION: 1.104
OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                                                                                                STREET: 45 SOUTH CITY: HOPKINTON
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TOPOLOGY: li
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                                                                       COUNTRY: UP ZIP: 01748
                                                                                                         STATE: MA
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                                                                                                                                      E: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES 45 SOUTH STREET
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PANG, ROY H.L.
                                                                                         USA
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linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16.6%;
                                                                                                                                                                                                           MORPHOGEN-INDUCED LIVER REGENERATION
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Pred. No. 4.7e+02;
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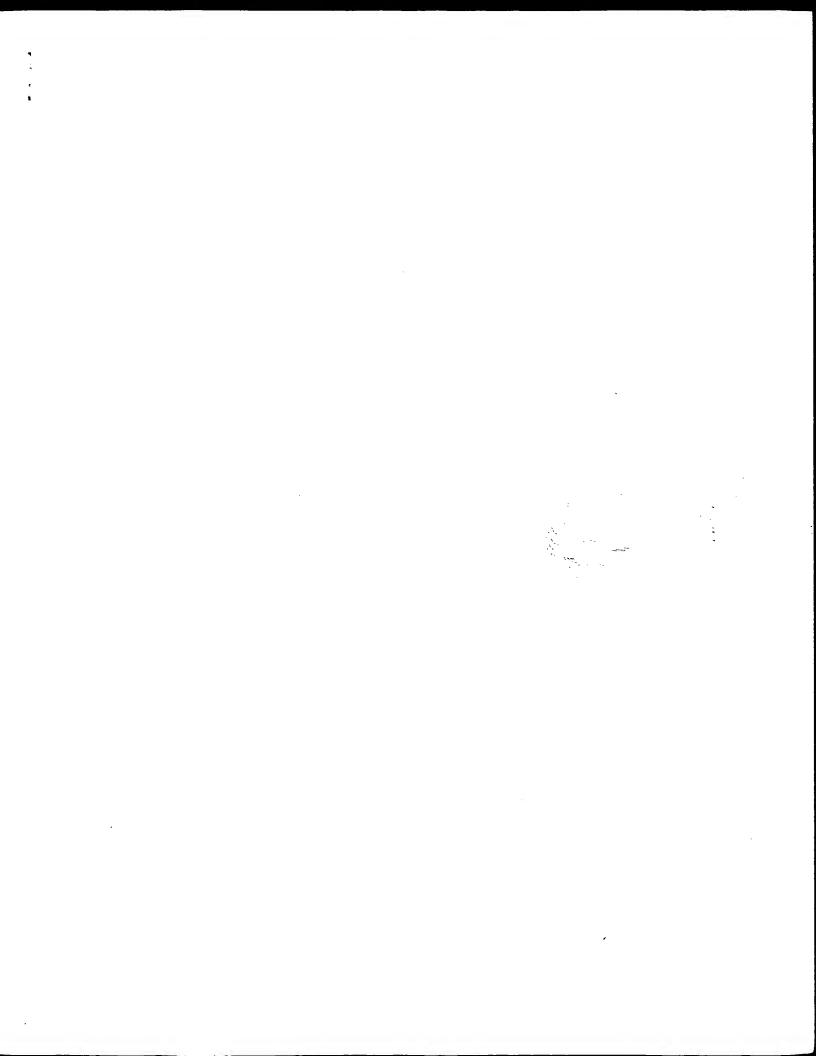
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                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/461,397A
FILING DATE: 05-JUN-1995
CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: PITCHER ESQ, EDMUND R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 26, Application US/08461397A Patent No. 5972884
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Best Local Similarity 30.8
Matches 4; Conservative
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APPLICANT: COHEN, CHARLES M.
APPLICANT: CHARTETE, MARC F.
APPLICANT: KUBERASAMPATH, THANGAVEL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEFAX: (617) 248-7100 INFORMATION FOR SEQ ID NO: 2
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APPLICANT:
APPLICANT:
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REGISTRATION NUMBER: 36,508
REFERENCE/DOCKET NUMBER: CRP-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 248-7560
                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQUENCES: 33
CORRESPONDENCE ADDRESSE: PATENT ADMINISTRATOR, CREATIVE BIOMOLECULES STREET: 45 SOUTH STREET
                  TELECOMMUNICATION INFORMATION: TELEPHONE: 617/248-7000
                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: MORPHOGEN TREATMENT FOR LIMITING TITLE OF INVENTION: PROLIFERATION OF EPITHELIAL CELLS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY: linear MOLECULE TYPE: protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: 514
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.30 CURRENT APPLICATION DATA: APPLICATION NUMBER: U5/08/445,468A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME/KEY: Protein LOCATION: 1..104 OTHER INFORMATION:
                                                      NAME: PITCHER ESQ, EDMUND R.
REGISTRATION NUMBER: 27,829
REFERENCE/DOCKET NUMBER: CRP-074FW2
                                                                                                                                                                                                                                                                                                                                                  CITY: HOPKINTON
STATE: MA
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STRANDEDNESS: sir
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PANG, ROY H.L.
OZKAYNAK, ENGIN
                                                                                                                                                                                                                                                                                                                                USA
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linear
617/248-7100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SMART, JOHN E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RUEGER, DAVID C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16.6%;
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Search completed: March 27, 2003, 11:02:54
Job time : 16 secs
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Best Local Similarity 30.8%;
Matches 4; Conservative
                                                                                                                                                                                                                                                                                                                                                   INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                     SEQUENCE CHARACTERISTICS:
LENGTH: 104 amino acid
                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                         MOLECULE TYPE: protein
                                                                                                                                                                                             NAME/KEY: Protein
LOCATION: 1..104
OTHER INFORMATION: /label- BMP3
                                                            22 PKSFDAYYCSGAC
                                                                                        TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                    : 104 amino acids amino acid
                                                                                                                                                                                                                                                                                                                                                   26:
                                                                                                                    Score 26; DB 2; Le
Pred. No. 4.7e+02;
0; Mismatches 9;
                                                                                                                                                  Length 104;
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Database :
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Minimum DB seq length: 0
Maximum DB seq length: 200000000
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            US-09-828-607-6
157
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   237916 seqs, 58723674 residues
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:/cgn2_6/ptodata/2/pubpaa/PCT_NEW_PUB.pep: *
:/cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep: *
:/cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep: *
:/cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep: *
:/cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep: *
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:/cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep: *
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB	ID	Description
_	27	17.2	549	10	US-09-801-368-358	Sequence 358, App
2	27	17.2	2609	ø	US-10-184-644-407	107
ω	27	17.2	2870	φ	US-10-184-644-473	473
4	26	16.6	59	10	US-09-864-761-39622	Sequence 39622, A
U	26	16.6	84	10	US-09-995-515-8	Sequence 8, Appli
σ	26	16.6	115	10	US-09-813-459-25	25
7	26	16.6	115	10	US-09-813-459-26	26,
8	26	16.6	119	12	US-10-115-406-16	16,
9	26	16.6	120	9	US-09-859-211-42	42,
10	26	16.6	120	9	US-09-880-708-20	
11	26	16.6	120	10	US-09-813-459-6	
12	26	16.6	120	10	US-09-813-459-16	16,
13	26	16.6	131	10	US-09-995-515-12	12,
14	26	16.6	140	10	US-09-995-515-2	ν,
15	26	16.6	182	9	US-09-974-879-139	Ξ.
16	26	16.6	195	10	US-09-995-515-4	Sequence 4, Appli
17	26	16.6	212	10	US-09-949-192-29	•
18	26	16.6	473	9	US-09-813-398-25	Sequence 25, Appl
19	26	16.6	476	10	US-09-813-459-5	Çī.

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US-10-176-492-525 US-10-176-747-525 US-10-176-750-525 US-10-176-985-525	US-10-174-582-525 US-10-174-588-525 US-10-175-739-525 US-10-175-740-525 US-10-175-743-525 US-10-175-743-525	US-10-176-757-525 US-10-176-913-525 US-10-180-552-525 US-10-180-557-525 US-10-173-700-525 US-10-173-700-525 US-10-174-572-525 US-10-174-579-525	US-10-176-758-525 US-10-175-737-525 US-10-173-706-525 US-10-173-738-525 US-10-175-738-525 US-10-175-752-525	US-09-813-398-26 US-10-184-644-355 US-10-174-590-525
Sequence 525, App Sequence 525, App Sequence 525, App Sequence 525, App	522555555555555555555555555555555555555	Sequence 525, App Sequence 525, App Sequence 525, App Sequence 525, App Sequence 525, App Sequence 525, App Sequence 525, App	5255	

ALIGNMENTS

US-09-801-368-358 ; Sequence 358, Application US/09801368 ; Patent No. US20020128250A1

GENERAL INFORMATION:

APPLICANT: Busby, Robert
APPLICANT: Cali, Brian
APPLICANT: Hecht, Peter
APPLICANT: Holtzman, Doug

APPLICANT: APPLICANT:

Madden, Kevin

Maxon, Mary Milne, Todd No. US20020128250Alman, Thea

APPLICANT:
APPLICANT:
APPLICANT:

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; ORGANISM: Aspergillus nidulans
US-09-801-368-358
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                                                                                                     Query Match 17.2%;
Best Local Similarity 30.8%;
Matches 4; Conservative
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APPLICANT: Salama, Sofie
APPLICANT: Sherman, Amir
APPLICANT: Sherman, Amir
APPLICANT: Silva, Jeff
APPLICANT: Silva, Jeff
APPLICANT: Summers, Eric
TITLE OF INVENTION: Methods for Improving Secondary Metabolite Production in Fungi
FILE REFERENCE: 109272.147
CURRENT APPLICATION NUMBER: US/09/801,368
CURRENT FILING DATE: 2001-03-07
PRIOR APPLICATION NUMBER: US 09/487,558
PRIOR APPLICATION NUMBER: US 09/487,558
PRIOR APPLICATION NUMBER: US 09/487,558
PRIOR FILING DATE: 2000-01-19
PRIOR FILING DATE: 1999-10-20
RUMBER OF SEQ ID NOS: 440
RUMBER OF SEQ ID NOS: 440
168 PAVTGSEGCTGSC 180
                                                   17 PXXXXXXXXXXXX 29
                                                                                                  Score 27; DB 10; Length 549; Pred. No. 1.6e+03; 0; Mismatches 9; Indels
                                                                                                  0;
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US-10-184-644-407

Sequence 407, A Publication No.

Application US/10184644 o. US20030044930A1

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US-10-184-644-473
                                                                                                  US-10-184-644-473
                                                                                                                SEQ ID NO 473
LENGTH: 2870
TYPE: DNA
ORGANISM: Homo Sapien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 473, Application US/10184644 Publication No. US20030044930A1
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Best Local :
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                                    Matches
                                                                Query Match
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                                                                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/10/184,644
CURRENT FILING DATE: 2002-06-28
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CURRENT FILING DATE: 2002-06-28
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                                                                                                                                                                                Prior Application removed NUMBER OF SEQ ID NOS: 612
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NUMBER OF SEQ ID NOS: 612
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Local Similarity 10.58;
   Local Similarity
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                                  Conservative
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                                                17.2%;
10.5%;
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Pred. No. 4.3e+03;
                                                Score 27; DB 9; Length 2870; Pred. No. 4.6e+03;
                                Mismatches
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US-09-864-761-39622
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US-09-864-761-39622
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                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 49117
SOFTWARE: Annomax Sequence Listing Engine vers. 1.1
SEQ ID NO 39622
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THER INFORMATION: MAP TO ACOOS809.1
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 4.1
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 4.5
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 6.6
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 5.3
OTHER INFORMATION: EXPRESSED IN ADDULT LIVER, SIGNAL = 8.4
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 6.4
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 6.4
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 5.1
OTHER INFORMATION: SWISSPROT HIT: 076942, EVALUE 1.50e+00
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PRIOR APPLICATION NUMBER: US 60/207,456
PRIOR STITNG DATE: 2000-05-26
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CURRENT APPLICATION NUMBER: US/09/864,761
CURRENT FILING DATE: 2001-05-23
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PRIOR APPLICATION 1
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PRIOR APPLICATION NUMBER: US 09/632,366
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US 09/608,408
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION NUMBER: US 60/234,687
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE:
                                                                                                                                                                                                                                                         ORGANISM: Homo
FEATURE:
                                                                                                                                                                                                                                                                                                           TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00670
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 60/236,359 FILING DATE: 2000-09-27
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hanzel, David K.
                                                                                                                                                                                                                                                                                    sapiens
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RESULT 6
US-09-813-459-25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 25, Application US/09813459 Patent No. US20020107369A1 GENERAL INFORMATION:
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Patent No. US20020151695A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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CURRENT FILING DATE: 2001-11-28
PRIOR APPLICATION NUMBER: 60/253,476
PRIOR FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 27
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Jing, Shuqian
TITLE OF INVENTION: Transforming Growth Factor-Beta-Related Molecules and
TITLE OF INVENTION: Uses Thereof
FILE REFERENCE: 00-659-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 84
TYPE: PRT
                                                                                                                                                       COMPUTER READABLE FORM:

MEDLUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: 205/09/813,459
FILLING DATE: 20-Mar-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
OFFICE APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Match 16.6%;
Local Similarity 30.8%;
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              APPLICATION NUMBER: 08/624,635
FILING DATE: <ORKNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: Wetherell, Jr., Ph.D., John R.,
REGISTRATION NUMBER: 31,678
REFERENCE/DOCKET NUMBER: PD-3054
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cunningham, No. US20020107369A1een
TITLE OF INVENTION: GROWTH DIFFERENTIATION FACTOR-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Lee, Se-Jin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 26
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                                                                                                                                                                                                                                                                                                                                                                    ZIP: 90067
                                                                                                                                                                                                                                                                                                                                                                                                          CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                               ADDRESSEE: Spensley Horn Jubas & Lubitz STREET: 1880 Century Park East, Suite 500
TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                         COUNTRY: USA
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(619) 455-5100
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                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO: 26:
SEQUENCE CHARACTERISTICS:
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                                                                                           LENGTH: 115 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34 PKSFDAYYCAGAC 46
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                                                                                                                                                                                                                                                                             APPLICATION NUMBER: 08/624,635
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Wetherell, Jr., Ph.D., John R.,
REGISTRATION NUMBER: 31,678
REFERENCE/DOCKET NUMBER: PD-3054
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ZIP: 90067

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTMARE: PATENTIA Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
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TITLE OF INVENTION: GROWTH DIFFERENTIATION FACTOR-10
NUMBER OF SEQUENCES: 26
LOCATION: 1..115
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                         FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS
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LENGTH: 115 amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: US/09/813,459 FILING DATE: 20-Mar-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Los Angeles
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: amino acid
STRANDEDNESS: single
                                   NAME/KEY: Protein
                                                                         CLONE: Murine GDF-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East, Suite 500
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Pred. No. 7.9e+02;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 9
US-09-859-211-42
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PRIOR FILING DATE: 1998-10-13
PRIOR APPLICATION NUMBER: US 08/491,835
PRIOR FILING DATE: 1995-10-23
PRIOR APPLICATION NUMBER: PCT/US94/00685
PRIOR FILING DATE: 1994-01-12
PRIOR FILING DATE: 1994-01-12
PRIOR APPLICATION NUMBER: US 08/003,303
PRIOR APPLICATION NUMBER: US 08/003,303
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APPLICANT: THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE
APPLICANT: LEE, Se-Jin
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 42, Application US/09859211
Patent No. US20020157125A1
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LENGTH: 119
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: LEE, Se-Jin
TITLE OF INVENTION: GROWTH DIFFERENTIATION FACTOR-9
FILE REFERENCE: JHU1190-3
CURRENT APPLICATION NUMBER: US/10/115,406
CURRENT FILING DATE: 2002-04-02
PRIOR APPLICATION NUMBER: 09/301,520
PRIOR FILING DATE: 1999-04-28
PRIOR FILING DATE: 1999-04-28
                                                                                                 PRIOR APPLICATION NUMBER: 08/862,445
PRIOR FILING DATE: 1997-05-23
PRIOR APPLICATION NUMBER: 08/47,910
PRIOR FILING DATE: 1997-04-28
PRIOR APPLICATION NUMBER: 08/795,071
PRIOR FILING DATE: 1997-02-05
PRIOR FILING DATE: 1997-02-05
                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/09/859,211
CURRENT FILING DATE: 2001-05-15
PRIOR APPLICATION NUMBER: 09/019,070
PRIOR FILING DATE: 1998-02-05
                                                                                                                                                                                                                                                                                                                   APPLICANT: McPherron, Alexandra C.
TITLE OF INVENTION: GROWTH DIFFERENTIATION FACTOR-8
FILE REFERENCE: 07265/144001
                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Lee, Se-Jin APPLICANT: McPherron,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 28
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ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           34 PKSFDAYYCAGAC 46
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                                                            APPLICATION NUMBER: 08/525,596 FILING DATE: 1995-10-26
APPLICATION
                 APPLICATION NUMBER: PCT/US94/03019 FILING DATE: 1994-03-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                4; Conservative
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  NUMBER:
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Pred. No. 8e+02;
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Pred. No. 7.9e+02;
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Query Match
Best Local Similarity
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US-09-880-708-20
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                                                                                                                                   US-09-880-708-20
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                                                                                  Query Match
Best Local :
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                                                                  Matches
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                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
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                                                               Local Similarity tes 4; Conserv
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                               39 PKSFDAYYCSGAC 51
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM: Windows95
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION NUMBER: US/09/880,708
APPLICATION NUMBER: US/09/880,708
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Gray Cary Ware & Freidenrich LLP
STREET: 4365 Executive Drive, Suite 1600
                                                                                                                                                   SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                  MOLECULE TYPE: protein IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: 858/677-1456
                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE: 12-Jun-2001 PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: GROWTH DIFFERENTIATION FACTOR-5 NUMBER OF SEQUENCES: 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
PKSFDAYYCSGAC 51
                                                                                                                                                                                                                                                                                                                                                  NAME: Lisa A. Haile, Ph.D.
REGISTRATION NUMBER: 38,347
REFERENCE/DOCKET NUMBER: 07265/057002
                                                                                                                                                                                                                                   TYPE: amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE: <Unknown>
APPLICATION NUMBER: 08/003,144
FILING DATE: 12-JAN-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CITY: San Diego
STATE: CA
                                                                                                                                                                      CLONE:
                                                                                                                                                                                                                   TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                      TELEFAX: 619/677-1465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: 09/145,060
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30.8%;
                                                                                  16.6%;
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                                                                              Score 26;
Pred. No.
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Pred. No. 8.1e+02;
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                                                             8.1e+02;
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RESULT 11

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RESULT 12
US-09-813-459-16
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                                                                                                                                                           Sequence 16, Application US/09813459
Patent No. US20020107369A1
GENERAL INFORMATION:
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Patent No. US20020107369A1
GENERAL INFORMATION:
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Local Similarity 30.8%;
                                                                                                 APPLICANT: Lee, Se-Jin
Cunningham, No. US20020107369Aleen
TITLE OF INVENTION: GROWTH DIFFERENTIATION FACTOR-10
                                                        NUMBER OF SEQUENCES: 26 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Wetherell, Jr., Ph.D., John R.,
REGISTRATION NUMBER: 31,678
REFERENCE/DOCKET NUMBER: PD-3054
                                                                                                                                            APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
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TELEPHONE: (619) 455-5100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
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ADDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East, Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE DESCRIPTION: SEQ ID NO: 6:
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TITLE OF INVENTION: GROWTH DIFFERENTIATION FACTOR-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                          4; Conservative
               ADDRESSEE: Spensley Horn Jubas & Lubitz
STREET: 1880 Century Park East, Suite 500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/09/813,459
FILING DATE: 20-Mar-2001
CLASSIFICATION: (Unknown)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY: Protein LOCATION: 1..120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acid
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STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLONE: GDF-10
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Los Angeles
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Pred. No. 8.1e+02;
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US-09-995-515-12
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                                                                                                                                             SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 12
LENGTH: 131
TYPE: PRT
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                                        Matches
                                                      Query Match
Best Local Similarity
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TELEPHONE: (619) 455-5100
TELEPANE: (619) 455-5110
INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
LENGTH: 120 amino acids
TYPE: amino acid
                                                                                                                                                                                                             APPLICANT: Jing, Shuqian
TITLE OF INVENTION: Transforming Growth Factor-Beta-Related Molecules and
TITLE OF INVENTION: Uses Thereof
FILE REFERENCE: 00-659-A
CURRENT APPLICATION NUMBER: US/09/995,515
CURRENT FILING DATE: 2001-11-28
PRIOR APPLICATION NUMBER: 60/253,476
PRIOR FILING DATE: 2000-11-28
NUMBER OF SEQ ID NOS: 27
NUMBER OF SEQ ID NOS: 27
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17 PXXXXXXXXXXXX 29
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NAME: Wetherell, Jr., Ph.D., John R.,
REGISTRATION NUMBER: 31,678
REFERENCE/DOCKET NUMBER: PD-3054
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
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                                    4; Conservative
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FILING DATE: 20-Mar-2001
CLASSIFICATION: Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME/KEY: Protein LOCATION: 1..120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: 08/624,635 FILING DATE: <Unknown>
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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ZIP: 90067
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                                                      16.6%;
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                              Score 26; DB 10; I
Pred. No. 8.6e+02;
0; Mismatches 9;
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Pred. No. 8.1e+02;
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                                                                   DB 10; Length 131;
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                                  Indels
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RESULT 15
US-09-974-879-139
; Sequence 139, Application US/09974879
; Publication No. US20030028003A1
; GENERAL INFORMATION:
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US-09-995-515-2
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Patent NO. US20020151695A1
GENERAL INFORMATION:
APPLICANT: Jing, Shuqian
TITLE OF INVENTION: Transforming Growth Factor-Beta-Related Molecules and
TITLE OF INVENTION: Uses Thereof
FILE REFERENCE: 00-659-A
CURRENT FILING DATE: 2001-11-28
PRIOR APPLICATION NUMBER: 60/253,476
PRIOR FILING DATE: 2000-11-28
PRIOR FILING DATE: 2000-11-28
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Rosen et al.
TITLE OF INVENTION: 125 Human Secreted Proteins
FILE REFERENCE: PZ020P2
                                                                                                                                                                               PRIOR
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                                   OR APPLICATION NUMBER: US 60/064,908
OR FILING DATE: 1997-11-07
OR APPLICATION NUMBER: US 60/064,984
OR FILING DATE: 1997-11-07
OR APPLICATION NUMBER: US 60/064,985
OR APPLICATION NUMBER: US 60/066,094
OR APPLICATION NUMBER: US 60/066,094
OR FILING DATE: 1997-11-17
OR FILING DATE: 1997-11-17
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FILING DATE: 1997-11-07
APPLICATION NUMBER: US 60/064,983
FILING DATE: 1997-11-07
APPLICATION NUMBER: US 60/064,900
FILING DATE: 1997-11-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US98/23435
ETILING DATE: 1998-11-04
APPLICATION NUMBER: US 60/064,911
FILING DATE: 1997-11-07
                                                                                                                                                                                                                       APPLICATION NUMBER: US 60/064,988 FILING DATE: 1997-11-07 APPLICATION NUMBER: US 60/064,987 FILING DATE: 1997-11-07
APPLICATION NUMBER: US 60/066,100 FILING DATE: 1997-11-17
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Pred. No. 9e+02;
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PRIOR APPLICATION NUMBER: US 60/066,089
PRIOR FILING DATE: 1997-11-17
PRIOR APPLICATION NUMBER: US 60/066,095
PRIOR FILING DATE: 1997-11-17
PRIOR APPLICATION NUMBER: US 60/066,090
PRIOR FILING DATE: 1997-11-17
NUMBER OF SEQ ID NOS: 611
SOFTWARR: PATENTIN Ver. 2.0
SEQ ID NO 139
LENGTH: 182
TYPE: PRT
                                                                                                     Ω
                                                                                                                                                                                                        ; ORGANISM: Homo sapiens US-09-974-879-139
Search completed: March 27, 2003, 11:03:15 Job time : 14 secs
                                                                     ₽
                                                                                                                                        Matches
                                                                                                                                                      Best Local Similarity
                                                                                                                                                                      Query Match
                                                                      153 PTLYLTSACLGLC 165
                                                                                                     4;
                                                                                                                                      Conservative
                                                                                                                                                        16.6%;
                                                                                                                                        0;
                                                                                                                                                      Score 26; DB 9; Length 182; Pred. No. 1.1e+03;
                                                                                                                                          Mismatches
                                                                                                                                          0;
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Gaps

0;

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GenCore version 5.1.4_p5_4578 Copyright (c) 1993 - 2003 Compugen Ltd.
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OM protein - protein search, using sw model

March 27, 2003, 10:58:19; Search time 44 Seconds (without alignments) 211.933 Million cell updates/sec

Perfect score: US-09-828-607-6 157

Sequence:

Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5

283224 seqs, 96134422 residues

Total number of hits satisfying chosen parameters: 283224

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : PIR_73:* pir1:*
pir2:*
pir3:*
pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result

Query

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24	3 6	န	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	ø	œ	7	σ	5	4	ω	2	Ľ	. No
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15.9	; ;	7	15.		15.	15.	15.	15.		15.	15.			15.	15.		15.	15.9		16.		16.	16.	16.	16.	16.	16.	16.	17.	Match
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insulin-like growth factor S11 precursor - soybean
N.Alternate names: leginsulin
C; Species: Glycine max (soybean)
C; Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 24-Oct-2000
C; Accession: S48192; PN0116
R; Watanabe, Y: Harbashov, S.F.; Komatsu, S.; Hemmings, A.M.; Miyagi, M.; Tsunasawa,
R; Watanabe, T: Harbashov, S.F.; Hemmings, A.M.; Miyagi, M.; Tsunasawa,
A; Title: A peptide that stimulates phosphorylation of the plant insulin-binding prote
A; Reference number: S48192; MUID:94357216; PMID:8076638
A; Accession: S48192; MUID:94357216; PMID:8076638

A;Molecule type: mRNA; protein
A;Molecule type: mRNA; protein
A;Residues: 1-119 <WANT>
A;Cross-references: GB:D17396; NID:g498167; PIDN:BAA04219.1; PID:g498168
A;Barbashov, S.F.; Egorov, T.A.
Mol. Biol. (Mosk.) 24, 953-961, 1990
A;Title: Using monoclonal antibodies to insulin for isolating proteins inhibiting cel

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45	44	43	42	41	40	39	38 8	37	36	35	34	w	32	31	30	
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53	52	43	43	43	41	29	29	27	26	25	25	20	1574	889	885	
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C72850	T10299	S33382	S18174	S18173	A59149	A58537	JH0699	\$55030	C44379	JH0700	JH0701	167551	T13954	E87304	A55453	
conotoxin homolog	conotoxin-like pro	metallothionein -	metallothionein -	metallothionein -	_	omega-conotoxin MV		CAP5 protein - ant	omega-conotoxin SV	omega-conotoxin MV	omega-conotoxin MV	monocyte chemotact	MEGF6 protein - ra	TonB-dependent rec	nucleotide diphosp	

ALIGNMENTS

ф	Ma Ma	REST 0886/ 0886/ 0798/ 079
Qy 17 PXXXXXXXCXGXC 29	Query Match 17.2%; Score 27; DB 2; Length 967; Best Local Similarity 30.8%; Pred. No. 1.8e+03; Matches 4; Conservative 0; Mismatches 9; Indels	RESULT 1 (G86229 hypothetical protein [imported] - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: O2-Mar-2001 #sequence_revision O2-Mar-2001 #text_change 31-Mar-2001 C;Accession: G86229 R;Theologis, A; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S; White, O.; Alon Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, ansen, N.F.; Hughes, B.; Huizar, L. Nature 408, 816-6820, 2000 A;Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.A.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marzia Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H. A;Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallo ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davis, R.W. A;Reference number: A86141; MUID:21016719; PMID:111307112 A;Accession: G86229 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-967 CSTO> A;Cross-references: GB:AE005172; NID:g3482933; PIDN:AAC33218.1; GSPDB:GN00141 A;Map position: 1
	Score 27; DB 2; I Pred. No. 1.8e+03; 0; Mismatches 9;	opsis thalian ar cress) 2-Mar-2001 #: ; Federspiel ay, A.B.; Con hnson-Hopson, X.; Liu, Z.A v.; Shinn, P. enter, J.C.; some 1 of the p; pMID:11133 9; pMID:11133
	Length 967;	N.A.; Kaul N.A.; Kaul Nway, A.R.; C.; Khan, ; Luros, J. Southwick, Davis, R.W plant Arak 7712
	0;	31-M Crea S.; S.; A.M
	Gaps	Aar-2001 .; White, isy, T.H.; isy, T.H.; Maiti, R. Maiti, R. f.; Sun, F. sis.
	0;	O.; Alon Dewar, E.; Kim, B.; Marzia

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A;Molecule type: protein
A;Residues: 20-30,'M',32-39 <BAR>
F;1-19/Domain: propeptide #status predicted <PRO>
F;20-56/Product: insulin-like growth factor S11 #status experimental <MAT>
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T24528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Reference number: PN0115; MUID:91066897; PMID:2250683 A; Accession: PN0116
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C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
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A; Introns: 61/3; 90/1; 165/2; 187/3; 256/3
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A; Accession: T24528
                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein T05E12.1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:281055; PIDN:CAB02894.1; GSPDB:GN00022; CESP:F01G10.6
A;Experimental source: clone F01G10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: A; Accession: T20478
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                                                                                                                                                                                                          A; Gene: CESP:T05E12.1
                                                                                                                                                                                                                                                A; Experimental source: clone T05E12
                                                                                                                                                                                                                                                                     A;Cross-references: EMBL:Z81585; PIDN:CAB04681.1; GSPDB:GN00023; CESP:T05E12.1
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A; Residues: 1-278 <WIL>
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Pred. No.
                                                                                                    Score 26; DB 2;
Pred. No. 1.3e+03;
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Pred. No. 1.2e+03;
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                                    A;Title: Novel regulators of bone formation: molecular clones and A;Reference number: A37278; MUID:89072730; PMID:3201241
A;Accession: D37278
A;Molecule type: mRNA
A;Residues: 1-472 <WO4>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            R;Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fuji, F.; Nucleic Acids Res. 28, 4317-4331, 2000
A;Title: Complete genome sequence of the alkaliphilic bacterium Bacillus halodurans A;Reference number: A83650; MUID:20512582; PMID:11058132
A;Accession: B83991
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Title: Sequence and expression of bone morphogenetic protein 3 mRNA in prolonged cu A;Reference number: I53032; MUID:95186061; PMID:7880444 A;Accession: I53032
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C;Date: 01-Dec-2000 #sequence_revision 01-Dec-2000 #text_change 15-Jun-2001
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  C; Genetics:
                                                                                                                                            R; Wozney, J.M.; Rosen, V.; Celeste, A.J.; Mitsock, L.M.; Whitters, M.J.; Kriz, Science 242, 1528-1534, 1988
                                                                                                                                                                                                        C;Species: Homo sapiens (man)
C;Date: 16-Sep-1992 #sequence_revision 03-Aug-1995 #text_change 18-Jun-1999
                                                                                                                                                                                                                                                bone morphogenetic protein 3 precursor - human N; Alternate names: osteogenin
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Best Local Similarity
A; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: GB:AP001516; GB:BA000004; NID:g10175192; PIDN:BAB06449.1; GSPDB:GA;Experimental source: strain C-125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Molecule type: DNA
A; Residues: 1-470 <STO>
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                                                                                                                                                                                  C; Accession: D37278
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    I53032
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Local Similarity 30.8%;
                                                                                                                                                                                                                                                                                                                                                                         69
                                                                                                                                                                                                                                                                                                                                                                                                                17 PXXXXXXXXXXXXX 29
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                                                                                                                                                                                                                                                                                                                                                                         PRGSGTNLCAGTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    291
                                                                                                                                                                                                                                                                                                                                                                         81
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 26; DB 2;
Pred. No. 1.4e+03;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 26; DB 2;
Pred. No. 1.6e+03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         i, Y.; Maeno, G.; Sasaki, R.; Masui, N.; Fuji,
2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
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A; Accession: TRNA A; Molecule type: mRNA A; Molecule type: mRNA A; Residues: 1-478 <HIN> A; Residues: 1-478 <HIN> A; Residues: 1-478 <HIN> A; Cross-references: DDB:D49492; NID:g699603; PIDN:BAA08452.1; PID:g699604 A; Cross-references: DDB:D49492; NID:g699604 A; Cross-references: DDB:D49492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Accession: JC4838
R;Hino, J.; Takao, M.; Takeshita, N.; Konno, Y.; Nishizawa, T.; Matsuo, H.; Kangawa, K. Biochem. Biophys. Res. Commun. 223, 304-310, 1996
A;Title: cDNA cloning and genomic structure of human bone morphogenetic protein-3b (BMP-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           bone morphogenetic protein-3b precursor [similarity] - human N;Alternate names: BMP-3b; GDF-10 C;Species: Homo sapiens (man) C;Date: 15-Aug-1996 #sequence_revision 15-Oct-1996 #text_change 01-Dec-2000 C;Accession: JC4838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F;30-366/Domain: propeptide #status predicted <PRO>F;367-476/Product: bone morphogenetic protein-3b #status predicted F;114,152,277,467/Binding site: carbohydrate (Asn) (covalent) #stat
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A;Title: Identification of rat bone morphogenetic protein-3b (BMP-3b), a new member of A;Reference number: JC4646; MUID:96193707; PMID:8605043
A;Accession: JC4646
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Rattus norvegicus (Norway rat)
C;Date: 10-May-1996 #sequence_revision 19-Jul-1996 #text_change 01-Dec-2000
C;Accession: JC4646
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F;346-472/Product: bone morphogenetic protein 3 #status predicted <MAT>
F;117,141,175,220,463/Binding site: carbohydrate (Asn) (covalent) #status
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A;Map position: 4p14-4q21
C;Superfamily: inhibin
                                                                                                                                                                                                                                                                                                                                                                                                                      A; Reference number: JC4838; MUID:96264636; PMID:8670277 A; Contents: femur
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F;1-29/Domain: signal sequence #status predicted <SIG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C:Comment: This protein plays a role in the central nervous system as well as in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: DDBJ:D49494; NID:g699625; PIDN:BAA08454.1; PID:g699626
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A; Residues: 1-476 <TAK>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bone morphogenetic protein-3b precursor - rat
                                                                                         ;Superfamily: inhibin
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            signal sequence
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30.8%;
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30.8%;
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Pred. No.
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        predicted
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9;
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transforming
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growth factor beta-2 -

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Proc. Natl. Acad. Sci. U.S.A. 96, 2902-2906, 1999

A:Title: Leishmania major Friedlin chromosome 1 has an unusual distribution of protei A;Reference number: A81455; MUID:99178987; PMID:10077609

A:Sccession: G81455
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S22351
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T02795
                                                                                                                                                    A;Cross-references: EMBL:X61106; NID:g56800; PIDN:CAA43418.1; PID:e39738; A;Note: the authors translated the codon TTC for residue 48 as Leu A;Note: the authors did not translate the codon for residue 99 C;Keywords: glycoprotein
                                                                                                                                                                                                                                                                          R;Deuchars, K.L.; Duthie, M.; Ling, V. Biochin. Biophys. Acta 1130, 157-165, 1992 A;Title: Identification of distinct P-glycoprotein gene sequences in A;Reference number: S22351; MUID:92223089; PMID:1348630 A;Accession: S22351
                                                                                                                                                                                                                                                                                                                                                                           C;Date: 22-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 05-Nov-1999
C;Accession: S22351
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Map position: 1
C; Superfamily: Leishmania major probable membrane protein L549.7
C; Keywords: transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             probable membrane protein L549.7 [imported] - Leishmania major (strain Friedlin) C;Species: Leishmania major (c;Date: 24-Mar-1999 #sequence_revision 24-Mar-1999 #text_change 19-May-2000 C;Accession: G81455; T02795
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F;369-478/Product: bone morphogenetic protein-3b #status predicted <MAT>
                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-99 <DEU>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: GB:AE001274; NID:g3264850; PIDN:AAC24619.1; PID:g2978456; GSPDB:GA;Experimental source: strain MHOM/IL/81/Friedlin
                                                                                                                                                                                                                                                                                                                                                                                                                  C; Species: Rattus norvegicus (Norway rat)
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Pred. No. 1.9e+03
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C;Date: 07-Oct-1994 *sequence_revision 07-Oct-1994 *text_change
C;Accession: A61439; A25485; B42320; S15389
R;Jin, Y; Cox, D.A.; Knecht, R; Raschdorf, F; Cerletti, N.
Protein Chem. 10, 565-575, 1991
A;Title: Separation, purification, and sequence identification A;Title: Separation, purification, and sequence identification A;Reference number: A61439; MUID:92189724; PMID:1799413
                                                                                                                                                             A; Map position: 3
A; Introns: 38/2; 82/2; 123/2; 196/2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hypothetical protein F2809.210 - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 04-Feb-2000 #sequence_revision 04-Feb-2000 #t
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C:Keywords: growth factor; growth regulation; heterodimer; homodimer
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A; Residues: 1-16, 'XX', 19 <CC
A; Experimental source: milk
C; Superfamily: inhibin
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                                                                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-240 <BEN>
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A; Accession: T45814
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R;Benes, V.; Rechmann, S.; Borkova, D.; Ansorge, W.; Mewes, H.W.; Lemcke, K.; Mayer,
                                                                                                                                              A; Note:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eur. J. Biochem. 197, 353-358, 1991
A;Title: Isolation and characterisa
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A; Residues: 1-6,'X',8-14,'XX',17-34 <OGA>
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A;Accession: A25485
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A; Residues: 1-30 <SEY>
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  PXXXXXXXXCXGXC
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Pred. No. 9.6e+02;
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A; Residues: 1-407 <STO>
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H84920
Search completed: March
Job time: 45 secs
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A; Accession: H84920
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A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.

A;Reference number: A84420; MUID:20083487; PMID:10617197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               probable Tub family protein [imported] - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 02-Feb-2001
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A;Note: F39G3.8
C;Superfamily: inhibin
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A;Molecule type: DNA
A;Residues: 1-366 <DUZ>
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30.8%;
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Pred. No. 2.1e+03;
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Pred. No.
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GenCore version 5.1.4_p5_4578

Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: March 27, 2003, 10:54:34; Search time 25 Seconds (without alignments)
160.928 Million cell updates/sec

Title: Us-09-828-607-6
Perfect score: 157
Sequence: 157
Sequence: 157
Gapop 10.0, Gapext 0.5
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Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Total number of hits satisfying chosen parameters:

112892

112892 seqs, 41476328 residues

st-processing: Minimum Match 0%

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database : SwissProt_40:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	œ	7	σ	σ	4	ω	2	ш	Result No.
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P41416	010367	010286	P27087	P27086	P58924	P81599	026350	P37300	200369	P58919	P05485	P79295	P03972	P27106	P49000	Q07257	P09858	P27090	P08112	P17247	P30371	₽55105	P21214	P55107	P55108	£97737	P12645	P49002	Q9vaf0	Q39837	0×pzqx0	059640	Description
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P11425 entamoeba h 042152 ambystoma m P04356 bos taurus P02800 equus cabal P04731 homo sapien P49068 sus scrofa P02801 equus cabal P02801 equus cabal P07438 homo sapien P09577 ovis aries P79376 sus scrofa P09578 ovis aries P79376 sus scrofa P09578 ovis aries
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ALIGNMENTS

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s SWISS-PROT entry is copyright. It is produced through a ween the Swiss Institute of Bioinformatics and the EMB European Bioinformatics Institute. There are no restri by non-profit institutions as long as its content i	-!- PATHMAY: Methanogenesis!- SUBUNIT: COMPOSED OF 8 DIFFERENT SUBUNITS (BY SIMILARITY)!- SUBCELLULAR LOCATION: CYTOPLASMIC AND VESICULAR MEMBRANE- ASSOCIATED (BY SIMILARITY).	-!- CATALYTIC ACTIVITY: 5-methyl-5,6,7,8-tetrahydromethanopterin + 2-mercaptoethanesulfonate = 5,6,7,8-tetrahydromethanopterin + 2-(methylthio)ethanesulfonate!- COFACTOR: BINDS 5-HYDROXYBENZIMIDAZOL COBAMIDE AS A PROSTHETIC	"The genome of Methanosarcina mazei: evidence for lateral gene transfer between Bacteria and Archaea."; J. Mol. Microbiol. Biotechnol. 4:4453-461(2002), -I- FUNCTION: THIS ENZYME COMDIEX CATALYZES AN INTERMEDIATE STED IN METHANGENESIS, THE FORMATION OF METHYL-COENZYME M AND TETRAHYDROMETHANOPTERIN FROM COENZYME M AND N5-METHYL-TETRAHYDROMETHANOPTERIN. THIS IS A ENERGY-CONSERVING, SODIUM-ION TRANSLOCATING STEP.	SEQUENCE FROM N.A. STRAIN-GOE1 / GO1 / ATCC BAA-199 / DSM 3647 / OCM 88; MEDLINE-22120827; PubMed-12125824; Deppenmeier U. Johann A., Hartsch T., Merkl R., Schmitz R.A., Martinez-Arias R., Henne A., Wiezer A., Baeumer S., Jacobi C., Martinez-Arias R., Lienard T., Christmann A., Boemecke M., Steckel S., Barueggemann H., Lienard T., Christmann A., Boemecke M., Steckel S., Bhattacharyya A., Lykidis A., Overbeek R., Klenk HP., Gunsalus R.P., Fritz HJ., Gottschalk G.;		MTRA OR MM1543. Methanosarcina mazei (Methanosarcina frisia). Methanosarcina mazei (Methanosarcina frisia). Archaea; Euryarchaeota; Methanococci; Methanosarcinales; Methanosarcinaceae; Methanosarcina. NCBI_TaxID=2209;	RESULT 1 MTRA_METWA STANDARD; PRT; 240 AA.

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Q9ZQXO;
Q9ZQXO;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
16-OCT-2001 (Rel. 40, Last annotation update)
16-OCT-2001 (Rel. 40, Last annotation update)
17-min 1 precursor (PAI) [Contains: PAIA; Leginsulin (PAIB)]
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                                                                                                                                                                                                                                                                                 Tan J.Z., Lou C.F.,
                                                                                                                                                                                                                                                                                                                                                                                                  Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosida eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae; Glycine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GLYSO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AF042381; AAC38334.1; -. EMBL; AE013388; AAM31239.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                         EMBL; AJ011935; CAA09880.2; -. Seed storage protein; Albumin; Signal
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                                                                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/
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                        Similarity 4; Conserv
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yta; eudicotyledons;
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Pred. No.
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                                                                      EE5457D8D09070CC CRC64;
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4.1e+02;
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                                                                                                                                                                                SIGNAL
                                                                                                                                                                                                              EMBL; D17396; BAA04219.1; -. EMBL; AJ223037; CAA11040.1;
                                                                                                                                                                                                                                                       entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (JUN-2001) to the SWISS-PROT data bank.
-I- FUNCTION: LEGINSULIN BINDS TO BASIC 75 GLOBULIN (BG) AND
-ISTIMULATES ITS PHOSPROKIATION ACTIVITY. INVOLVED IN THE SIGNAL TRANSDUCTION SYSTEM TO REGULATE THE GROWTH AND DIFFERENTIATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-cv. Miyagishirome;
Tan J.Z., Lou C.F., Hirano H.;
"Analysis of leginsulin gene in soybean cultivar (Glycine wild species (Glycine soja).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "A peptide that stimulates phosphorylation binding protein. Isolation, primary structieur. J. Biochem. 224:167-172(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Watanabe Y., Barbashov S.F., Komatsu S., Hemmings A.M., Miyagi M.,
Tsunasawa S., Hirano H.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN-cv. Miyagishirome; TISSUE-Radicle; MEDLINE-94357216; PubMed-8076638;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosida eurosids I; Fabales; Fabaceae; Papilionoideae; Phaseoleae; Glycine.
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16-OCT-2001 (Rel. 40, Last sequence update)
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cDNA cloning.";
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                                                      Gaps
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RA Adams N.D., Celniker S.E., Helt R.A., Evans C.A., Gocayne J.D.,
RA Adams M.D., Celniker S.E., Hilt R.A., Evans C.A., Golayne J.D.,
RA Adams M.D., Celniker S.E., Helt R.A., W., Honderson S.N.,
RA Bandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Ffeiffer B.D.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Ffeiffer B.D.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Ffeiffer B.D.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Ffeiffer B.D.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Ffeiffer B.D.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Ffeiffer B.D.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Ffeiffer B.D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaragulu L., Beasley E.M.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaragulu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Boltear R.,
RA Beeson K.Y., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA Gebabios B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA Gebabios B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA Gosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Ganan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Harris N.L., Mattei B., McIntosh T.C., McLeod M.P., Kepherson D.
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
Liang Y., Lin X.,
RA Melson D.R., Nelson K., Nusskern D.R., Pacleb J.M.,
RA Melson D.R., Nelson K., Nusskern D.R., Pacleb J.M.,
RA Rimer E.C., Staphen M., V., Moshrefi A.,
RA Menner E.C., Staphen M., Sunps M.H., Wang X.,
RA Menner E.C., Staphen M., Shang S., Fleschah H.,
RA Sylraks R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA Mans R., Deng F.N., Zhong W., Zhang G., Zhao Q., Zheng
InterPro: IPR003689; Zn_trnprt_Zip.
Pfam; Pf02535; Zip; I.
Hypothetical protein; Transmembrane; Glycoprotein.
TRANSMEM 37 57 POTENTIAL.
TRANSMEM 79 99 POTENTIAL.
                                                                                                                                                                                                         the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Mandibulata; Pancrustacea; Hexapoda;
Insecta; Pterygota; Neoptera; Endopterygota; Diptera; Brachycera;
Muscomorpha; Ephydroidea; Drosophilidae; Drosophila.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hypothetial protein CG7816 CG7816.
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16-OCT-2001
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                                                                                                      FlyBase; FBgn0039714; CG7816.

    SUBCELLULAR LOCATION: Integral membrane protein (Probable).
    SIMILARITY: BELONGS TO THE KE4/CATSUP FAMILY.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=20196006; PubMed=10731132;
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                                                                                                                                                                 send an email to license@isb-sib.ch).
                                                                                                                        AE003771; AAF56960.1; -.
                                                                                                                                                                                                                                                                    the Swiss Institute of Bioinformatics
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                                                                                                                                                                                                       Usage
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                                                                                                                                                                                                                                                  restrictions on
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PRINTS; PR00438; GFCYSKNOT. PIODOM; PD000357; TGFB; 1. SMART; SM00204; TGFB; 1.

PROSITE; PS00250; Signal; Growth fac

TGF_BETA_1;

BETA_1; 1.
Cytokine; Bone; Cartilage; Glycoprotein

BONE MORPHOGENETIC PROTEIN

POTENTIAL.

POTENTIAL.

InterPro; IPR002400; GF_cysknot.
InterPro; IPR001839; TGFb.
Pfam; PF00019; TGF-beta; 1.

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ID BMP3_RAT
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01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
Pone morphogenetic protein 3 precursor (BMP-3).
                                                                                                                                                                                                                                                      EMBL; D63860;
EMBL; S77492;
HSSP; P12643;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN-Sprague-Dawley; Takao M., Hino J., Kan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 This
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BMP3_RAT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rissue=Calvaria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INTESTINE, AND OVARY, AND AT LOW LEVELS IN CEREBELLUM, COSTA AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SWISS-PROT entry is copyright. It is produced through a collaboration en the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                               non-profit institutions as long as its content and this statement is not removed. Usage by an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Feng J.Q., Feng M., Harris M.A., Mahy P., Mundy G.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AUG-1995) to the EMBL/GenBank/DDBJ databases
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3BMP.
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SEQUENCE
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InterPro; IPR001839; TGFb.
Pfam; PF00019; TGF-beta; 1.
PRINTS; PR00438; GFCYSKNOT.
PRODOM; PD000357; TGFb; 1.
SMART; SM00204; TGFB; 1.
                                                                                                                                                                                                                                                                           use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license account.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wozney
Kriz R
                                                                 Signal; Growth
SIGNAL 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-OCT-1989
16-OCT-2001
                                                                                                                                                                                                                                                            or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A. MEDLINE-89072730; PubMed-3201241;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P12645;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BMP3_HUMAN
                                                                                          PROSITE;
                                                                                                                                                                                                                                                                          entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                              between
                                                                                                                                                                                                                                                                                                                                                                                                                     Science 242:1528-1534(1988).
                                                                                                                                                                                                                                                                                                                                                                                                                                  activities."
                                                                                                                                                                                                                                                                                                                                                                                                                                           "Novel regulators of bone formation: molecular clones and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=9606;
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                                                                                                                                                                                                                                                                                                                                                                                          FUNCTION: INDUCES CARSUBUNIT: HOMODIMER;
                                                                                                                                                                                                                                                                                                                                                                   SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                TISSUE SPECIFICITY:
                                                                                                                                                                                    112263; -
                                                                                                                                                                                                                        D37278; D37278.
                                                                                                                                                                                                                                                                                                                          SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                         R.W., Hewick R.M., Wang E.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     morphogenetic
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                                                                                                                                                                                             P12643; 3BMP.
HGNC:1070; BMP3.
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Y: EXPRESSED IN LUNG, OVARY AND SMAL
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annotation update)
3 precursor (BMP-3
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                                                                                       CHAIN
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                                                                                                                                                                                                                                                                   the European Bioinformatics Institute. There are no rest
use by non-profit institutions as long as its content
modified and this statement is not removed. Usage by an
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1997 (Rel. 35, Last sequence update)
16-OCT 2001 (Rel. 40, Last annotation update)
Bone morphogenetic protein 3b precursor (BMP-3b)
(Growth/differentiation factor 10) (GDF-10).
                                                                                                                                                        Pfam; PF00019; TGF-beta; 1
ProDom; PD000357; TGFb; 1.
                                                                                                                                                                                   MGD; MGI:95684; Gdf10
InterPro; IPR001839; 5
                                                                                                                                                                                                           HSSP;
                                                                                                                                                                                                                                            or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                          entities
                                                                                                                                                                                                                                                                                                                                                     -1- SUBUNIT: HOMODIMER OR HETERODIMER (POTENTIAL).
-1- TISSUE SPECIFICITY: Expressed in uterus, adipose tissue, bone, and to a lesser extent in liver and spleen.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Cunningham N.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                         between
                                                                                                                                                                                                                                                                                                                                                                                         Growth Factors 12:99-109(1995)
                                                                                                                                                                                                                                                                                                                                                                                                               growth factor-beta superfamily
                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=96115614; PubMed-8679252;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GDF10 OR BMP3B
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                                                                                                                                   PROSITE;
                                                                                                                                                                                                                                                                                                                                           -1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                     protein-3."
                                                                                                                                                                                                                                                                                                                                                                                                                           Reddi A.H., Lee S.-J.;
"Growth/differentiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          391
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17
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                                                                                                                                                                                                                     S82648; AAB46753.1;
                                                                                                                                                                                                           P12643; 3BMP
                                                                                                                                   SM00204; TGFB; 1.
E; PS00250; TGF_BETA_1;
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                                                                                                                        Growth
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                                                                                                                                                                                   TGFb
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                                                                                                                        Cytokine; Glycoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                            factor-10:
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POTENTIAL.

BONE MORPHOGENETIC PROTEIN 3B.
BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
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N-LINKED (GLCNAC. . .) (POTE
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Pred. No.
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N-LINKED (GLCNAC...) (PO)
N-LINKED (GLCNAC...) (PO)
95C3B7ED5C9D596F CRC64;
                                                                                                           POTENTIAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                               -10: a new member of the transforming
related to bone morphogenetic
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J.4e+02;
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L outstation -
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P55108;
01-OCT-1996
01-OCT-1996
                                                                                       CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
SEQUENCE
                                                                                                                                                                         DISULFID CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Entrepean Bioinformatics Institute. There are no restuse by non-profit institutions as long as its content use by non-profit institutions are long as its content modified and this statement is not removed. Usage by and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem. Biophys. Res. Commun. 219:656-662(1996).
-- SUBUNIT: HOMODIMER OR HETEKODIMER (POTENTIAL).
-- TISSUE SPECIFICITY: COSTA, COSTICARTILAGE, FEMUR, CALVARIA-
TRACHEA, AORTA AND BRAIN. PREDOMINANTLY IN THE CEREBELLUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matsuo H., Kangawa K.;
"Identification of rat bone morphogenetic protein-3b member of BMP-3.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
16-OCT-2091 (Rel. 40, Last annotation update)
Bone morphogenetic protein 3b precursor (BMP-3b)
(Growth/differentiation factor 10) (GDF-10) (Bone inducing
                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                 Signal; Growth SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR001839; TGFb. Pfam; PF00019; TGF-beta; 1 ProDom; PD000357; TGFb; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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                                                                                                                                                          CARBOHYD
                                                                                                                                                                                                                                            DISULFID
                                                                                                                                                                                                                                                                DISULFID
                                                                                                                                                                                                                                                                                       CHAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalia; Eutheria; Rodentia;
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                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
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                                                                                                                                                                                                                                                                                                                                                                                             SM00204;
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      Similarity 4; Conserv
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        Conservative
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0 440
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52490 MW;
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                        16.6%;
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                                                                                         MW;
                                                                                                      BONE MORPHOGENETIC PROTEIN 3B.
BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . .) (POTENTIAL).
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0; Mismatches
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ches 9;
                          5.4e+02;
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                                            Length 476;
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      ALD DESCRIPTION OF THE PROPERTY OF THE PROPERT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BM3B_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                      PROPEP
CHAIN
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CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BM3B_HUMAN
P55107; Q91
                                                                                                                                                                                                                                                                                                                                                                     EMBL; D49493;
EMBL; D49492;
HSSP; P12643;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Bone morphogenetic protein 3b precursor (BMP-
(Growth/differentiation factor 10) (GDF-10) (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   use by non-profit institutions as long as its content modified and this statement is not removed. Usage by an entities requires a license agreement.
    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Growth Factors 12:99-109(1995).
-I- SUBUNIT: HOMODIMER OR HETERODIMER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=96115614; PubMed=8679252;
Cunningham N.S., Jenkins N.A., Gilbert D.J., Copeland N.G., Reddi A.H., Lee S.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P55107; Q9UCX6;
01-OCT-1996 (Re
                                                                                                                                                                         Signal; Growth SIGNAL
                                                                                                                                                                                                                                        ProDom; PD000357; TGFb; SMART; SM00204; TGFB; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities re
or send an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Growth/differentiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "cDNA cloning and genomic structure of human bone protein-3B (BMP-3b).";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GDF10 OR BMP3B
                                                                                                                                                                                                                                                                                                                                               Genew; HGNC:4215; GDF10.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hino J., Takao M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                    PROSITE; PS00250;
                                                                                                                                                                                                                                                                                fam; PF00019;
                                                                                                                                                                                                                                                                                                         InterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TISSUE-Uterus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 360-478 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matsuo H., Kangawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE=96264636; PubMed=8670277;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  395
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SIMILARITY: BELONGS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE SPECIFICITY: FEMUR, BRAIN,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AND TESTIS.
                                                                                                                                                                                                                                                                                                                          601361;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          factor-beta superfamily
                                                                                                                                                                                                                                                                                                                                                                                                                                                        requires a license agreement (See http://www.isb-sib.ch/announce/an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biophys. Res. Commun.
                                                                                                                                                                                                                                                                                                         IPR001839; TGFb
    34
369
376
405
409
442
118
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etazoa; Chordata;
theria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                         BAA08453.1; -. BAA08452.1; -.
                                                                                                                                                                                                                                                                                                                                                                       3BMP
                                                                                                                                                                                                                                                                                  TGF-beta;
                                                                                                                                                                                             factor;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                    TGF_BETA_1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Takeshita N.,
                                                                                                                                                                                                Cytokine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        factor-10: a new member of the
rfamily related to bone morphoge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TO THE TGF-BETA FAMILY.
                                                                BY SIMILARITY.
BY SIMILARITY.
BY SIMILARITY.
    N-LINKED
                                            INTERCHAIN (BY SIMILARITY)
                                                                                                                                 BONE MORPHOGENETIC PROTEIN 3B
                                                                                                                                                     POTENTIAL
                                                                                                                                                                           POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               223:304-310(1996)
                                                                                                                                                                                           Glycoprotein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Konno Y., Nishizawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GDF-10) (Bone inducing protein)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         478
(GLCNAC. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
LUNG, SKELETAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (BMP-3b)
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  (POTENTIAL)
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transforming

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RESULT 10
TGF2_BOVIN
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CARBOHYD
SEQUENCE
                                                                                                                                        Ogawa Y., Schmidt D.K., Dasch J.R., Chang R.J., Glaser C.B.;
"Purification and characterization of transforming growth factor-l
2.3 and -beta 1.2 heterodimers from bovine bone.";
J. Biol. Chem. 267:2325-2328(1992),
1- FUNCTION: TGF-BETA 2 HAS SUPPRESSIVE EFFECTS ON INTERLEUKIN-2
DEPENDENT T-CELL GROWTH.
-I- SUBUNIT: HOMODIMER; DISULFIDE-LINKED. HETERODIMERS OF TGF-BET/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE-92189724; PubMed-1799413;
Jin Y., Cox D.A., Knecht R., Raschdorf F., Cerletti N.;
"Separation, purification, and sequence identification and TGF-beta 2 from bovine milk.";
J. Protein Chem. 10:565-575(1991).
              InterPro;
InterPro;
                                                                                                                                                                                                                                                                                                                                                                  Cox D.A., David A., Buerk R.R.; "Isolation and characterisation of milk growth factor, transforming-growth-factor-beta 2-related polypeptide,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Cartilage-inducing factor-B is a unique functionally related to transforming grov J. Biol. Chem. 262:1946-1949(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-87137406; PubMed-3469199; Seyedin S.M., Segarini P.R., Rosen
                                                                 AND OF TGF-BETA 2/3 HAVE BEEN FOUND
-1- SUBCELLULAR LOCATION: Secreted.
-1- SIMILARITY: BELONGS TO THE TGF-BETA
PIR: S15389; S15389.
                                                                                                                                                                                                                                                                  MEDLINE=92129307; PubMed=1733936;
                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE-91224126; PubMed=2026157;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE OF 1-19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bovidae; Bovinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (MGF)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Transforming
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15-JUN-2002
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                                                                                                                                                                                                                                                                                    TISSUE-Bone;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=9913;
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                                                                                                                                                                                                                                                                                                                                       J. Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PXXXXXXXXCXGXC
                                                    P08112;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                IPR002400; GF_cysknot IPR001839; TGFb.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               281
469
478
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (Rel. 18, Created)
(Rel. 36, Last sequence update)
(Rel. 41, Last annotation update)
g growth factor beta 2 (TGF-beta 2
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                                                                                                                                                                                                                                                                                                                                     197:353-358(1991)
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469
53121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
; 80AE0FA4C50B23A9 CRC64;
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                                                                                       TGF-BETA FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            growth
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                                                                                                                         IN BONE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein structurally and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Thompson A.Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .4e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9;
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from
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                                                                                                                                                                                                                               factor-beta
                                                                                                                                          TGF-BETA
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                                                                                                                                                                                                                                                                                                                                                                       bovine
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THE WARREN RESERVED DESCRICTOR COCCOCCE PRESERVED OCCOCCE PRESERVE
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RESULT 11
BM8B_MOUSE
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Best Local
                                                                                   InterPro; IPR001839; TGFb.
InterPro; IPR001111; TGFb_N.
Pfam; PF00019; TGF-beta; 1.
Pfam; PF00688; TGFb_propeptide; 1
PRINTS; PR00438; GFCYSKNOT.
PRODOM; PD000357; TGFb; 1.
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                   Signal;
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SMART; SM00204; TGFB; 1.
PROSITE; PS00250; TGF_BETA_1;
Growth factor; Mitogen; Milk.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Zhao G.Q., Hogan B.L.;
"Evidence that mouse Bmp8a (Op2) and Bmp8b are
"Evidence that mouse Bmp8a and placental de
                                                     PROSITE;
                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                               entities requires a
                                                                                                                                                                                                                                                                                                               use by non-profit institumodified and this statement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=ICR; TISSUE=Placenta; MEDLINE=97000308; PubMed=8843393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bone morphogenetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-OCT-1996
16-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BM8B_MOUSE
P55105;
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                                                                        SMART;
                                                                                                                                                                                              InterPro; IPR002400;
                                                                                                                                                                                                            HSSP; P18075; 1BMP.
MGD; MGI:107335; Bmp8b.
                                                                                                                                                                                                                                             EMBL; U39545; AAB17573.1;
                                                                                                                                                                                                                                                                                                                                                 the European Bioinformatics Institute.
                                                                                                                                                                                                                                                                                                                                                                   between
                                                                                                                                                                                                                                                                                                                                                                                                                   -!- SUBCELLULAR LOCATION: Secreted (By similarity).
-!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BMP8B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                               y a role in spermatogenesis and placental development.";
h. Dev. 57:159-168(1996).
FUNCTION: INDUCES CARTILAGE AND BONE FORMATION. MAY BE THE
OSTEOINDUCTIVE FACTOR RESPONSIBLE FOR THE PHENOMENON OF
EPITHELIAL OSTEGGENESIS. PLAYS A ROLE IN CALCIUM REGULATION
AND BONE HOMEOSTASIS (BY SIMILARITY).
SUBUNIT: HOMODIMER; DISULFIDE-LINKED.
                                                                                                                                                                                                                                                                                                                            SWISS-PROT entry is copyright. It is produced through a collab
een the Swiss Institute of Bioinformatics and the EMBL outst
European Bioinformatics Institute. There are no restrictions
by non-profit institutions as long as its content is in
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PXXXXXXXXCXGXC
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                                                                                                                                                                                            GF_cysknot.
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 Cytokine; Bone; Cartilage; Glycoprotein.
POTENTIAL.
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annotation update)
8B precursor (BMP-8B).
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Pred. No.
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5142C7432C4EBC1C CRC64;
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3e+02;
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RESULT 12
TGF2_CHICK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHICK
TGF2_CHICK
TGF2_CHICK
P30371;
01-APR-1993 (Rel. 25, Created)
01-APR-1993 (Rel. 25, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
1-naforming growth factor beta 2 precursor (TGF-beta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DISULFID
CARBOHYD
CARBOHYD
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DISULFID
DISULFID
DISULFID
                                                        Pfam; PF00019; TGF-beta; 1.
Pfam; PF00688; TGFb_propeptide;
PRINTS; PR00438; GFCYSKNOT.
PRINTS; PR01423; TGFBETA.
ProDom; PD000357; TGFb; 1.
SMART; SM00204; TGFB; 1.
                                                                                                                                                                                                                                                                                                                                                       EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Burt D.W., Paton I.R.;

"Molecular cloning and primary structure
growth factor-beta 2 gene.";

DNA Cell Biol. 10:723-734(1991).

-I- FUNCTION: TGF-BETA 2 HAS SUPPRESSIVE
DEPENDENT T-CELL GROWTH.

-I- SUBUNIT: HOMODIMER; DISULFIDE-LINKED.
                                                                                                                                                                                 InterPro; IPR002400; GF_cysknot.
InterPro; IPR003911; TGF_TGFb.
InterPro; IPR00133; TGFb.
InterPro; IPR001111; TGFb_N.
                                                                                                                                                                                                                                                                                                PIR;
                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                  modified and this statement is not removed. entities requires a license agreement (See or send an email to license@isb-sib.ch).
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STRAIN=White leghorn;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=White leghorn; TISSUE=Blood; MEDLINE=92075163; PubMed=1683775;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE
                                       PROSITE; PS00250; TGF_BETA_1; 1.
                                                                                                                                                                                                                                                                                                                  EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=9031;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Secreted.
SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
                                                                                                                                                                                                                                                                                     ; x58071; CAA41101.1; -.; x59082; CAA41101.1; JOINED.; x59081; CAA41101.1; JOINED.; x59080; CAA41101.1; JOINED.; x59080; CAA41101.1; JOINED.; A39489; A39489.
                                                                                                                                                                                                                                                                        P08112; 2TG1
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298
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331
363
155
Mitogen; Glycoprotein; Signal.

1 20 POTENTIAL.
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BY SIMILARITY.
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INTERCHAIN (BY SIMILARITY).
N-LINKED (GLCNAC. . . .) (POTEIN-LINKED (GLCNAC. . .
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RESULT 13
TGF2_XENLA
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Best Local :
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                                                                                                                                  InterPro; IPR002400; GF_cysknot.
InterPro; IPR003911; TGF TGFb.
InterPro; IPR001839; TGFb.
InterPro; IPR0011111; TGFb.N.
Pfam; PF00019; TGF-beta; 1.
Pfam; PF00688; TGFb_propeptide; 1.
PfAMTS; PR00438; GFCTSKNOT.
PRINTS; PR01433; GFDETA.
PRODOM; PD000357; TGFb; 1.
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                     Signal;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REDDERT M.L., Bhatia-Dey N., Dawid I.B.;
"The sequence of TGF-beta 2 from Xenopus laevis.";
Nucleic Acids Res. 18:2185-2185(1990).
-I- FUNCTION: TGF-RETTA 2 TTG 1990).
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CARBOHYD
                                                                            SMART; SM00204; TGFB; 1.
PROSITE; PS00250; TGF_BETA_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; X51817; CAA36116.1;
EMBL; X51817; CAA36117.1;
PIR; S09510; S09510.
HSSP; P08112; 2TGI.
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01-AUG-1990 (Rel. 15, Last sequence of the control of the control
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TGFB2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota;
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SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FUNCTION: TGF-BETA 2 HAS SUPPRESSIVE EFFECTS ON DEPENDENT T-CELL GROWTH.
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Mesobatrachia;
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                                                Growth factor.
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ia; Pipoidea; Pipidae;
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RESULT 14
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PO8112; Q15579; Q15581;
01-AUG-1988 (Rel. 08, Created)
01-AUG-1988 (Rel. 08, Last sequence update)
15-JUN-2002 (Rel. 41, Last annotation update)
Transforming growth factor beta 2 precursor (TGF-beta 2)
(Glioblastoma-derived T-cell suppressor factor) (G-TSF) (BSC-1 cell growth inhibitor) (Polyergin) (Cetermin).
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SEQUENCE
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                                                                                                                                                                                                                                           analysis.";
DNA 7:1-8(1988).
                                                                                                                                                                                                                                                                 Madisen L., Webb N.R., Rose T.M., Marquardt H., Ikeda T.,
Twardzik D.R., Seyedin S., Purchio A.F.;
Transforming growth factor-beta 2: cDNA cloning and sequence
                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-88111555; PubMed-3322813;
de Martin R., Haendler B., Hofer-Warbinek R., Gau
Schluesener H., Seifert J.M., Bodmer S., Fontana
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Cercopithecus aethiops (Green monkey) (Grivet).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 deduced from Proc. Natl. A
                                                                                                                                                          Webb N.R., Madisen L., Rose T.M., "Structural and sequence analysis
                                                                                                                                                                                                                                                                                                                                                                                      de Martin R., Haendler B., Hofer-Warbinek R., Gaugitsch H., Wrann M
Schluesener H., Seifert J.M., Bodmer S., Fontana A., Hofer E.;
"Complementary DNA for human glioblastoma-derived T cell suppressor
factor, a novel member of the transforming growth factor-beta gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                               two different precursor
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9606,
"Amino acid sequence of the BSC-1 cell growth inhibitor (polyergin) deduced from the nucleotide sequence of the cDNA."; Proc. Natl. Acad. Sci. U.S.A. 85:79-82(1988).
                                        folley R.W.;
                                                      Hanks S.,
                                                                 MEDLINE-88124824;
                                                                                           SEQUENCE FROM N.A. (ISOFORM
                                                                                                                                     splicing
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                                                                                                                       7:493-497(1988).
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4; Conservative
                                                   8124824; PubMed=3277172; Armour R., Baldwin J.H.,
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                                                                                                                                                             cDNA clones
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InterPro; IPR002400; Q
InterPro; IPR003911; T
InterPro; IPR001839; T
InterPro; IPR0011111; T
                                                                                                                                                                                                                     EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-92350287; PubMed-1641027;
Schlunegger M.P., Gruetter M.G.;
"An unusual feature revealed by the crystal structure at "An unusual feature revealed by the crystal structure at "An unusual feature revealed by the crystal structure at "An unusual feature revealed by the crystal structure at "An unusual feature revealed by the crystal structure at "An unusual feature transforming growth factor-beta 2.";
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                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Genes Immun. 2:295-296(2001).
-I- FUNCTION: TGF-BETA 2 HAS SUPPRESSIVE DEPENDENT T-CELL GROWTH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Molecular cloning and structure factor-beta 2 gene promoter."; Growth Factors 4:247-255(1991).
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MEDLINE=92110032; PubMed=1764261;
Noma T., Glick A.B., Geiser A.G., O'Reilly M.A., Miller J.,
                                                                                                                                                                                                                                                                         or send
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Marquardt H., Lioubin M.N., Ikeda T.;
                                                                                     Genew;
                                                                                                   PDB; 2TGI;
                                                                                                                                                                                                                                                                                                                                                                                        -!- SUBCELLULAR LOCATION: Secreted.
-!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Alansari A., Hajeer A.H., Bayat "Two novel polymorphisms in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT HIS-91.
MEDLINE=21419167; PubMed=11528528;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Complete amino acid sequence of human type beta 2.";
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                                                                        MIM; 190220;
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SEQUENCE OF 1-115 FROM
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                                                                                                                                                                                                                                                                                                                                                                                                   SUBUNIT: HOMODIMER; DISULFIDE-LINKED.
ALTERNATIVE PRODUCTS: 2 ISOFORMS; A (SHOWN HERE) AND B;
PRODUCED BY ALTERNATIVE SPLICING. ISOFORM B IS ENCODED
5.1 KB MRNA SPECIES PRESENT IN HUMAN AND SIMIAN CELLS.
SUBCELLULAR LOCATION: Secreted.
                                                                                                                              $306216; $306216.

$A29478; $A29478.

$A29798; $A29798.

$A34005; $A34005.
                                                                                                                                                                                                   Y00083; CAA68279.1;
M19154; AAA50404.1;
M19154; AAA50405.1;
J03585; AAA35358.1;
                                                                                                                ITFG;
                                                                                                                                                                                     M87843; AAA61162.1;
                                                                                     HGNC:11768;
                                                                                                                                                                                                                                                                           s requires a license agreement (See http://www.isb-sib.ch/announce/
an email to license@isb-sib.ch).
                                                                                                 31-OCT-93.
31-JAN-94.
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PRINTS; PR00438; GFCYSKNOT.
PRINTS; PR01423; TGFBETA.
ProDom; PD000357; TGFb; 1.
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PROSITE; PS00250; TGF_BETA_1; 1.
                                                 Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
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                 MEDLINE=90014832; PubMed=2797004;
                          SEQUENCE FROM N.A.
                                         NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Murine transforming growth factor-beta 2 expression in adult tissues and embryos." Mol. Endocrinol. 3:1108-1114(1989).
-i- FUNCTION: TGF-BETA 2 HAS SUPPRESSIVE DEPENDENT T-CELL GROWTH.
-i- SUBUNIT: HOMODIMER; DISULFIDE LINKED.
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-1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

16	15	14	13	12	11	10	9	8	7	6	₅	4	ω	N	1	Result No.
26	26	26	26	26	26	26	26	26	26	26	26	26	27	27	27	Score
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STRAIN-CY. COLUMBIA;
STRAIN-CY. COLUMBIA;
Federspiel N.A., Palm C.J., Conway A.B., Kurtz D.B., Conway A.R.,
Au M., Araujo R., Buehler E., Dewar K., Feng J., Kim C., Li Y.,
Oji O., Osborne B.I., Shinn P., Sun H., Toriumi M., Vysotskaia V.S.,
Yu G., Ecker J., Theologis A., Davis R.W.;
Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                         Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core e eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     080540;
01-NOV-1998 (TrEMBLrel.
01-NOV-1998 (TrEMBLrel.
01-JUN-2002 (TrEMBLrel.
                                                                                                                                                                                                                               SEQUENCE FROM N.A.
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Haas H., Zadra I., Stoffler G., Angermayr K.;
"The Aspergillus nidulans GATA factor SREA is involved in regulation of siderophore biosynthesis and control of iron uptake.";
J. Biol. Chem. 274:4613-4619(1999).
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01-NOV-1999 (TrEMBLrel. 12, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
Siderophore biosynthesis repressor SREA.
                                                                                                                                                                                                                                                                                                                                                                                               Arabidopsis thaliana (Mouse-ear cress).
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Eukaryota; Fungi; Ascomycota; Pezizomycotina; Eurotiomycetes;
Eurotiales; Trichocomaceae; Emericella.
                                                                                                                                                                                                                                                                                       NCBI_TaxID=3702;
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Pfam; PF00320; GATA; 2.
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PS50114; GATA_ZN_FINGER_2; 2.
PS50114; GATA_ZN_FINGER_2; 2.
549 AA; 58842 MW; 559DCF02AEFD62E3 CRC64;
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Probom; PD000001; Euk_pkinase; 1.

SMART; SM00220; S_TKC; 1.

PROSITE; PS00107; PROTEIN_KINASE_DATP; UNKNOWN_1.

PROSITE; PS00101; PROTEIN_KINASE_DOM; 1.

PROSITE; PS00108; PROTEIN_KINASE_ST; 1.

AND-binding; Serine/threonine-protein kinase; Transferase.

SEQUENCE 967 AA; 108177 MW; 6EB7FF3366C51289 CRC64;
 Q9Z4A9
                                                                                                                                                                                                                                                                                                                                                                                                                                           Daniels G.D., Belosevic M., Secombes C.J.;
Submitted (AUG-1997) to the EMBL/GenBank/DBJ databases.
-!- FUNCTION: IS LIKELY TO BE AN IMPORTANT CYTOKINE REGULATING IMMUNE
RESPONSE. MAY ALSO HAVE A ROLE IN OTHER PHYSIOLOGICAL SYSTEMS.
-!- SUBUNIT: HOMODIMER, DISULFIDE-LINKED (BY SIMILARITY).
-!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
EMBL; AJ001040; CAA04494.1; -.
HSSP; P01137; IKIA.
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01-JAN-1998 (TrEMBLrel. 05, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Transforming growth factor beta (Fragment).
Carassius auratus (Goldfish).
Cukaryota; Metazoa; Chordata; Craniata; Vertebratiseukaryota; Metazoa; Chordata; Craniata; Vertebratiseukaryota; Metazoa; Chordata; Teleostei; Ostariophy Cyprinidae; Carassius.
NCBI_TaxID-7957;
                                                                                                                                                                                                                                                                                                                                        Growth factor; Mitogen; Glycoprotein
                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR001839; TGFb.
Pfam; PF00019; TGF-beta; 1.
Probom; PD000357; TGFb; 1.
SMART; SM00204; TGFB; 1.
PROSITE; PS00250; TGF_BETA_1;
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InterPro; IPR002290; Ser_thr_pkinase.
Pfam; PF00069; pkinase; 1.
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Pred. No. 1.
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                                                                                                                                                                                                                               525465C4E8A70771 CRC64;
 PRT;
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 230
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4.7e+02;
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RESULT 6
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01-DEC-2001
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"Organization and diversification of plasmid 9
"Organization and diversification of plasmid 9
nucleotide sequence of the Collb-P9 genome.";
Submitted (DEC-1998) to the EMBL/GenBank/DDBJ
EMBL; AB021078; BAA75159.1;
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01-MAY-2000
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                                                                                                                                                                                                                                            Komano T., Narahara K., Yoshida T., Furuya N.;
With transfer region of IncIl plasmid R64: similarities
tra genes and Legionella icm/dot genes.";
Submitted (MAY-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                              Salmonella typhimurium
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                                                                                                                                                        Furuya N., Komano T.;

"Determination of the nick site at oriT of similarity of oriT structures of IncIl and J. Bacteriol. 173:6612-6617(1991).
                                                                                                                                                                                                                                                                                      STRAIN-DRD-11;
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                                                                                                                                                                                                                                                                                                                                         Bacteria; Proteobacteria;
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                                                                                                                                                                                           MEDLINE=92011438; PubMed=1917882; Furuya N., Komano T.;
                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=602;
                                                                                                    MEDLINE=98053841; PubMed=9393692; Furuya N., Komano T.;
        MEDLINE-98268996; PubMed-9603870;
Yoshida T., Furuya N., Ishikura M.,
Ogawa T., Komano T.;
                                                                      "Mutational analysis of the R64 oriT region: requirement location of the Nika-binding sequence.";
J. Bacteriol. 179:7291-7297(1997).
                                                                                                                           STRAIN-DRD-11
                                                                                                                                       SEQUENCE FROM N.A.
 "Purification
                                          STRAIN-DRD-
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                                                    SEQUENCE FROM
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Pred. No.
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Pansegrau W., Lanka E., Barth P.T.,
Haas D., Helinski D.R., Schwab H.,
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J. Mol. Biol. 239:623-663(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pansegrau W., Lanka E., Barth P.T., Figurski D.H., Guir
Haas D., Helinski D.R., Schwab H., Stanisich V.A., Thon
"Complete nucleotide sequence of Birmingham IncP-alpha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-DRD-
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joining reaction catalyzed by relaxase (TraI) of conjugative pla
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"Oryza sativa nipponbare(GA3) genomic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Spermatophyta; Magnoliophyta;
Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Lillopsida; Poales; Poaceae;
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Oryza sativa (Rice)
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SEQUENCE 240 AA; 2
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01-MAR-2001
                                           Q9H7T3;
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7.8e+02;
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01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
CDNA FLJ14280 fis, clone PLACE1005584, weakly similar to trans-acting

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RESULT 10
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ID 017776
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Science 282:2012-2018(1998).
EMBL; Z81055; CAB02894.1; -
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                                                                                                                                                                                                                                        MEDLINE-99069613; PubMed-9851916;
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Eukaryota; Metazoa; Nemato
Rhabditidae; Peloderinae;
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SEQUENCE 257 AA; 26269 MW; B914A57EA54DF418 CRC64;
                                                                                                                                               Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              179 PLCSYRTSCAGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Mammalla; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17 PXXXXXXXCXGXC 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-PLACENTA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                        (OCT-1996) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.
    (TrEMBLrel. 05, (TrEMBLrel. 05,
                                    PRELIMINARY;
                                                                                                                                                                              278 AA;
                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                          30945 MW;
                                                                                                                                          16.6%;
                                                                                                                                                                                                                                                                                                                        Nematoda; Chromadorea;
rinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16.6%;
                                                                                                                                                                                                                                                                the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                 05,
19,
    Last
             Created)
                                                                                                                                  0;
                                                                                                                                                   Score 26;
                                                                                                                                            Pred.
                                                                                                                                                                                                                                                                                                                                                                        Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 26; DB 4; Len
; Pred. No. 8.3e+02;
""omatches 9;
                                                                                                                                                                    9C5B0F9F3C88577A CRC64;
                                                                                                                             Mismatches
sequence update)
                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                            ŏ.
                                  347
                                                                                                                                                                                                                                                                                                                                                                                                                      278
                                                                                                                                                   DΒ
                                 Ã
                                                                                                                                      .6e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                     A
                                                                                                                                                                                                                                                                                                                          Rhabditida; Rhabditoidea;
                                                                                                                             9
                                                                                                                                               Length 278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 257;
                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo
                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                     0
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                        RESULT 12
Q9DFC6
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Q8R209
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                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9DFC6
Q9DFC6;
Q1-MAR-2001 (
01-MAR-2001 (
01-JUN-2002 (
              01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation updat
TGF-beta family member lefty-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
Matches 4; Conserv
        Xenopus laevis (African
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Interpro; IPKUUL, Interpro; IPKUUL, Interpro; IPRO00168; 7ty Interpro; IPRO00168; 7ty Interproperty IPKUUL, Interproperty Interproperty IPKUUL, INTERPROPERTY INTERPROPE
                                                                                                                                                                                                                         268 PKSFDAYYCAGAC
                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                          Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (FEB-2002) to the EMEMBL; BC022669; AAH22669.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Strausberg R.;
Submitted (FEB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q8R209;
Ol-JUN-2002 (TrEMBLrel. 21, Created)
Ol-JUN-2002 (TrEMBLrel. 21, Last sequence update)
Ol-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Hypothetical 39.1 kDa protein (Fragment).
Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-COLON;
                                                                                                                                                                                                                                                             17 PXXXXXXXXXXXXXXXX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q8R209
                                                                                                                                                                                                                                                                                                      Local Similarity les 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     investigating biology.", Science 282:2012-2018(1998). EMBL; 281585; CAB04681.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-99069613; PubMed-9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (NOV-1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOSELZ.I.
Caenorhabditis elegans.
Eukaryota; Metazoa; Nematoda; Chromadorea;
Eukaryota; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17 PXXXXXXXXCXGXC 29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               McMurray
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Genome sequence of the nematode C.elegans:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-MAR-2002 (TrEMBLrel.
T05E12.1 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PLIATTSGCFGLC 99
                                                                                                                                                                                                                                                                                                                                                                              349 AA;
                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IPR003002; 7TM_chemol. IPR000168; 7TM_nematode.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                         280
                                                                                                                                                                                                                                                               29
                                                                                                                                                                                                                                                                                                                                                                          39115 MW;
                                                                                                                                                                                                                                                                                                                  16.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                       to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39762 MW;
clawed frog).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                        Score 26; DB
Pred. No. 9.7e
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Last annotation update)
                                                                                                                    PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                                                                                                                D361C92578686F63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E97BA2961988AE5A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            No. 9.6e+02;
                                                                                                                366
                                                                                                                                                                                                                                                                              DB 1.
9.7e+02;
9;
                                                                                                              A
                              update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A platform
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Rhabditida; Rhabditoidea;
                                                                                                                                                                                                                                                                                                                      Length 349;
                                                                                                                                                                                                                                                                                                                                                                CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 347;
                                                                                                                                                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      for
                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0,
                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                          0
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RESULT Q9D36
ID Q9
AC Q9
DT 01
RT 10
RT 11
RT 11
RT 11
RT 11
RT 12
RT 12
RT 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9DD36;
01-MAR-2001 (
01-MAR-2001 (
01-JUN-2002 (
                    Pfam; PF00688; TGFb_propeptide;
ProDom; PD000357; TGFb; 1.
SMARF; SM00204; TGFB; 1.
PROSITE; PS00250; TGF_BETA_1; 1.
                                                                                                                    InterPro; IPR001839; TGFb.
InterPro; IPR001111; TGFb_N.
Pfam; PF00019; TGF-beta; 1.
                                                                                                                                                                                                                                                EMBL;
                                                                                                                                                                                                                                                                                                                                                                       Cheng
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=11091069;
Tanegashima K., Yokota C., Takahashi S., Asashima M.;
Tanegashima K., Yokota C., Takahashi S., Asashima M.;
Tanegashima K., Yokota C., Takahashi S., Asashima M.;
Tanegashima M.;
Tanegashima M.;
Tanegashima M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Xanting (Lefty-related factor Xatv).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Glycoprotein
SEQUENCE 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF000019; TGF-beta; 1.
Pfam; PF00088; TGFb_propeptide;
Probom; PD000385; TGFb; 1.
SMART; SM00204; TGFB; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             **Branford W.W., Essner J.J., Yost H.J.; ***Regulation of gut and heart left-right asymmetry by context-dependent interactions between Xenopus lefty and BMP4 signaling."; Dev. Biol. 223:291-306(2000).
                                                                                               Pfam; PF00019; Pfam; PF00688;
                                                                                                                                                                                                                                                                                                                      signaling in mesoderm induction
                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          XANTIVIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q9DD36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. MEDLINE=20341055; PubMed=10882517;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                  "The lefty-related factor Xatv acts
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Xenopodinae; Xenopus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Amphibia; Batrachia; Anura; Mesobatrachia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS00250; TGF_BETA_1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HSSP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=8355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR001839; TGFb.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local
                                                                                                                                                                                                                   elopment 0:0-0(2000).
SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
L; AB038010; BAB12725.1; -.
L; AE209744; AAG35771.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SIMILARITY: BELONGS TO THE TGF-BETA FAMILY. L; AF283562; AAG10034.1; -. P; P18075; 1BMP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PAGYNAFRCAGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PXXXXXXXCXGXC
                                                                                                                                                                                               P08112; 2TGI
                                                                                                                                                                                                                                                                                                                                                                         A.M.S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 4; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IPR001111;
                                                                                                                                                                                                                                                                                                                                                                                                                                               99:3-14(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 366 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                       Thisse B., Thisse C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41434 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGFb_N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 26;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ۲
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   E65CEC306F4B5ED5 CRC64;
                                                                                                                                                                                                                                                                                                                        and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ĕ
.
                                                                                                                                                                                                                                                                                                                                             Wright C.V.E.; as a feedback inhibitor of nodal
                                                                                                                                                                                                                                                                                                                      L-R axis development
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vertebrata; Euteleostomi; ia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 .9e+02;
es 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 366;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                      in Xenopus.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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Best Local Similarity
"-+-hes 4; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HSSP; P08112; 2TGI.
InterPro; IPR001839; TGFb.
InterPro; IPR001111; TGFb.N.
Pfam; PF000019; TGF-beta; 1.
Pfam; PF00688; TGFb_propeptide; 1
ProDom; PD000357; TGFb; 1.
SMART; SM00204; TGFB; 1.
SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

Yin Z., Kuang J.;

Yin Z., Kuang J.;

"Molecular cloning of carp transforming growth factor beta 1.";

"Molecular cloning of carp transforming growth factor beta 1.";

Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: IS LIKELY TO BE AN IMPORTANT CYTOKINE REGULATING RESPONSE. MAY ALSO HAVE A ROLE IN OTHER PHYSIOLOGICAL SYSTEM

RESPONSE. MAY ALSO HAVE A ROLE IN OTHER PHYSIOLOGICAL SYSTEM

RESPONSE.
                                                                                                                                                                                                                                                                                                       Q9PTQ2 PRELIMINARY; PRT; 376 AA.
Q9PTQ2;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-JUN-2002 (TrEMBLrel. 21, Last annotation update)
Transforming growth factor beta precursor.
                                                                                                                                                                                                                                           Cyprinus carpio (Common carp).
Eukaryota; Metazoa; Chordata; Craniata;
Actinopterygii; Neopterygii; Teleostei;
                                                                                                                                                                                              Cyprinidae; Cypr
NCBI_TaxID=7962;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Dev.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
TGF-beta family member lefty-B.
Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q9DFC5;
01-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AF283563; AAG10035.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9DFC5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Branford W.W., Essner J.J., Yost H.J.; "Regulation of gut and heart left-right
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=20341055; PubMed=10882517;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Xenopodinae; Xer
NCBI_TaxID=8355;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PROSITE; PS00250; TGF_BETA_1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     interactions between Xenopus lefty and BMP4 signaling.";
Dev. Biol. 223:291-306(2000).
1- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Amphibia; Batrachia; Anura; Mesobatrachia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              293 PAGYNAFRCTGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17 PXXXXXXXXXXXXX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                367 AA;
                                                                                                                                                                                                                           Cyprinus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              305
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                41604 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  41504 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16.6%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 26; I
Pred. No. 9.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DBA7E85752B7FB3A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEAA90275BC8574A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   367
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 13;
                                                                                                                                                                                                                                             Ostariophysi;
                                                                                                                                                                                                                                                                       Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ,.9e+02;
9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   asymmetry by context-dependent
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .9e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Pipoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 367;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 367;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Euteleostomi;
                                                                                                                                                                                                                                                Cypriniformes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
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                                            IMMUNE
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CC -!- SUBUNIT: HOMODIMER, DISULFIDE-LINKED (BY SIMILARITY).

CC -!- SIMILARITY: BELONGS TO THE TGF-BETA FAMILY.

DR EMEL, AF136947; AARS2573.1; -.

DR HSSP; P01137; IKLA.

DR InterPro; IPR001189; TGFb.

DR InterPro; IPR001189; TGFb.

DR InterPro; IPR001189; TGFb.

DR InterPro; IPR001189; TGFb.

DR Fram; PF00019; TGF-beta; 1.

DR Pfam; PF00019; TGF-beta; 1.

DR Procom; P0000357; TGFb; 1.

POTENTIAL:

PT SIGNAL 25

POTENTIAL:

PT SIGNAL 265

PT SIGNAL 341

INTERCHAIN (BY SIMILARITY)

PT DISULFID 308 373

BY SIMILARITY

PT DISULFID 341 341

INTERCHAIN (BY SIMILARITY)

PT CARBOHYD 125 125

POTENTIAL)

PT CARBOHYD 125 125

POTENTIAL)

PT CARBOHYD 125 125

PT CARBOHYD 167 167

PT SITE 230

POTENTIAL)

PT CARBOHYD 167 168; SCOTE 26; DB 13; Length 376;

Matches 4; Conservative 0; Mismatches 9; Indels 0; Gaps 0;

DD 300 PSGYYANYCTGSC 312

Search completed: March 27, 2003, 11:01:43

South 10:01:43

South 10:01:43
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